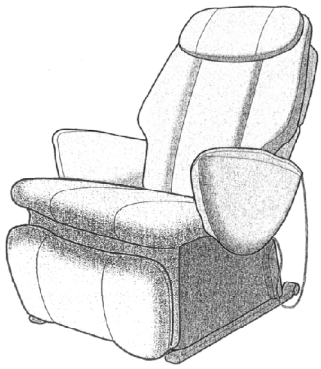
ORDER NO.HPD0309P04C1

Service Manual

MASSAGE LOUNGER

EP1061-P1



SPECIFICATIONS

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ower Supply:	120V AC, 60Hz
ower Consumption:	160W (Approx. 5W in Standby mode with the controller turned off or when the ur turned off.)
pper Body Massage	
Massage Area (Up-Down):	Approx. 27.6in. (70cm)
Massage Area (Left-Right):	Distance between Massage Heads during Operation Approx. 2.4 – 5.9in. (6 – 15cm
Massage Area (Forward-Back):	2.2in. (5.5cm)
Massage Cycle:	Shiatsu : Approx. 12 cycles/min. Swedish : Approx. 11 cycles/min. Knead : Approx. 12 cycles/min. Vibration : Approx. 3,000 – 3,600 cycles/min. Tap A : Approx. 50 – 3,600 cycles/min. Tap B : Approx. 200 - 300 cycles/min. Whole Body Roll : Approx. 2 cycles/min. (Approx. 35 sec./cycle) Regional Roll : Approx. 6 - 10 cycles/min. (Approx. 6 - 10 sec./cycle)
eg Massage	
Roller speed:	Fast : Approx. 60 cycles/min. Slow : Approx. 50 cycles/min.
eclining Angle:	Backrest : Approx. 120° -170° Legrest : Approx. 0° - 85°
utomatic Shut-Off:	Approx. 15 min. for both upper body and legs (15 – 17min.)
imensions:	
When not reclined. (H×W×D)	41.3×3.15×41.3in. (105×80×105cm)
When reclined. (H×W×D)	23.6×31.5×65in. (60×80×165cm)
/eight:	128 lbs. (58kg)
laximum user weight:	264 lbs. (120kg)

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1. COMPONENTS IDENTIFICATION

1.1. Massage lounger

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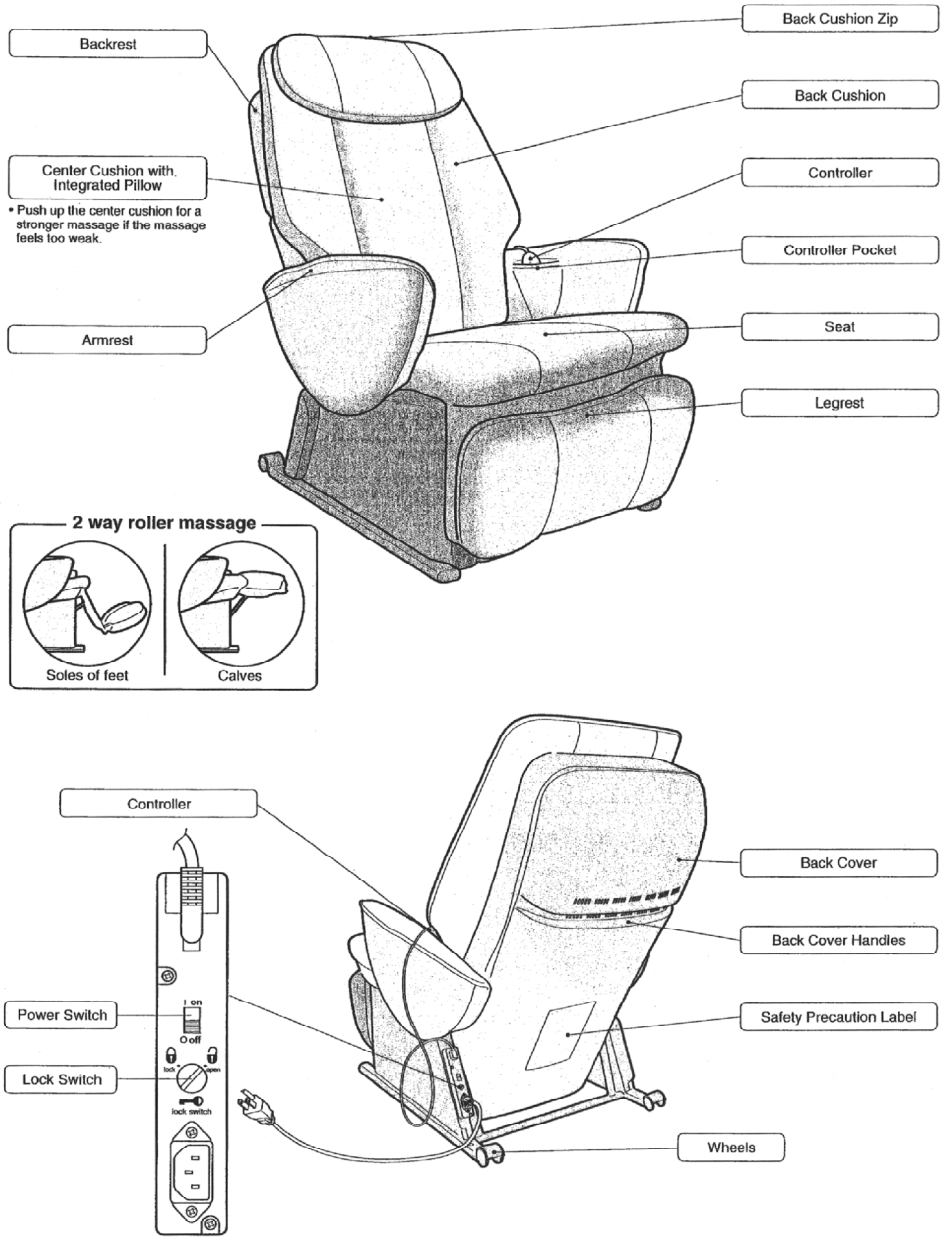

1.2. Controller

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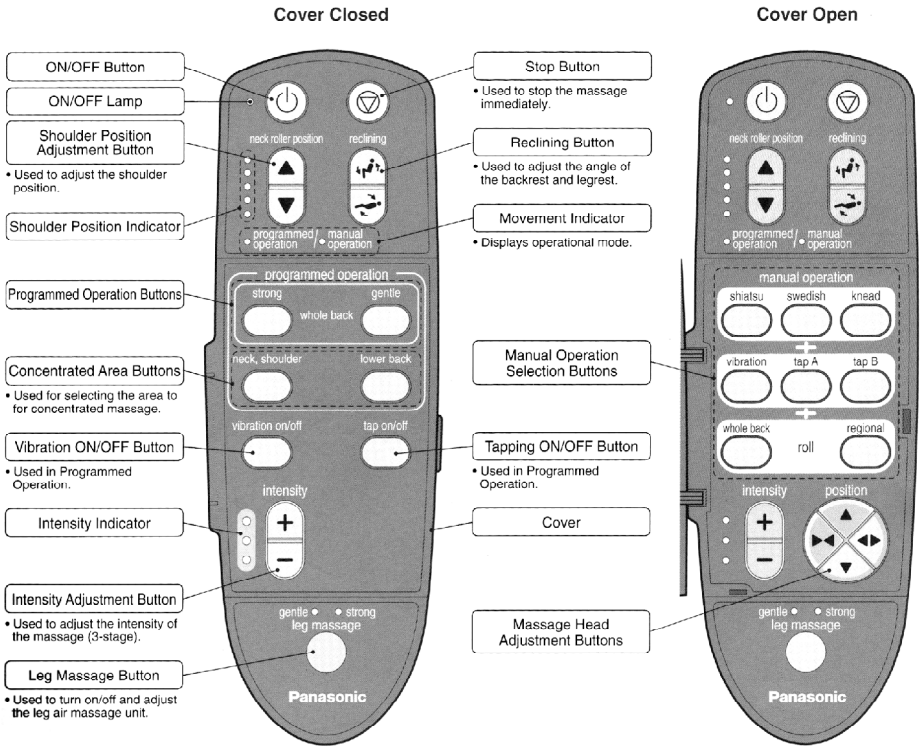

2. MASSAGE RANGE (MOVEMENT RANGE OF MASSAGE WHEELS)SHIATSU MASSAGE, SWEDISH MASSAGE, KNEADING, VIBRATING, TAPPING A, TAPPING B, WHOLE BACK ROLLING, REGIONAL ROLLING

Width adjustment
Approx.60 to 150mm

Intensity adjustment
Shiatsu, Swedish, Knead, vibration, Tap A, Tap B, whole back roll, and Regional roll (from gentle to strong)
:55mm-wide adjustability where massage heads push out toward body as intensity increases.

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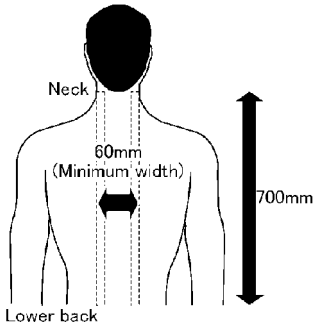
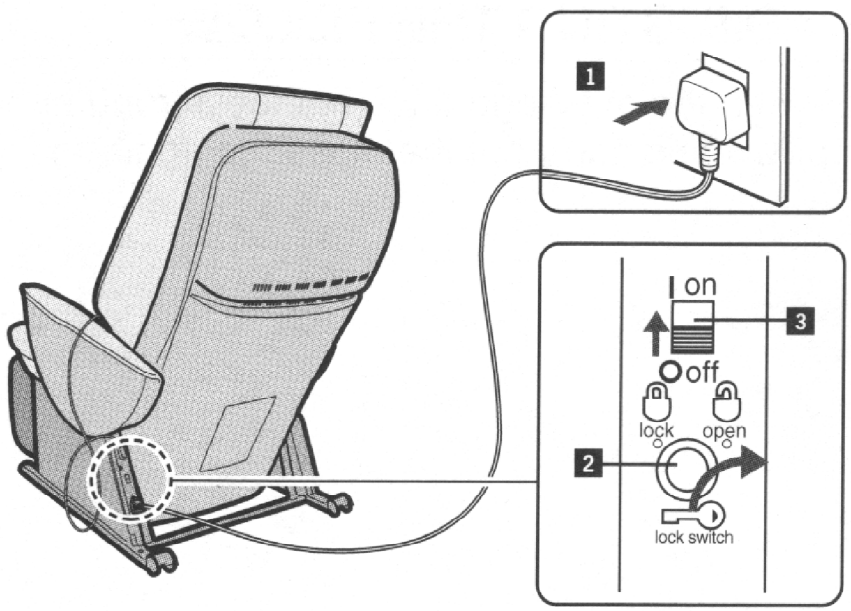


3. TURNING ON THE POWER

3.1. Turning on the power



1. Plug the power plug into the power socket.

2. Turn the lock switch to the open position.

3. Turn on the power switch on the back of the unit.

- When the operating lock switch is pointing toward ’ lock ’ , the power switch cannot be moved to the ’ on ’ position.

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After each use.

- **Be sure to turn the power switch to ' off ' .**
- **To prevent children from using this unit, lock the power switch by moving the operating lock switch to the 'lock' position.**
- **As a further caution, unplug the power cord from the power socket after each use.**
- **Always keep the key in a safe place.**

Timer
When the on/off button is pushed, a timer begins to prevent overuse. After approximately 15 minutes, time expires and the massage wheel goes into storage position.

4. REQUIRED TOOLS

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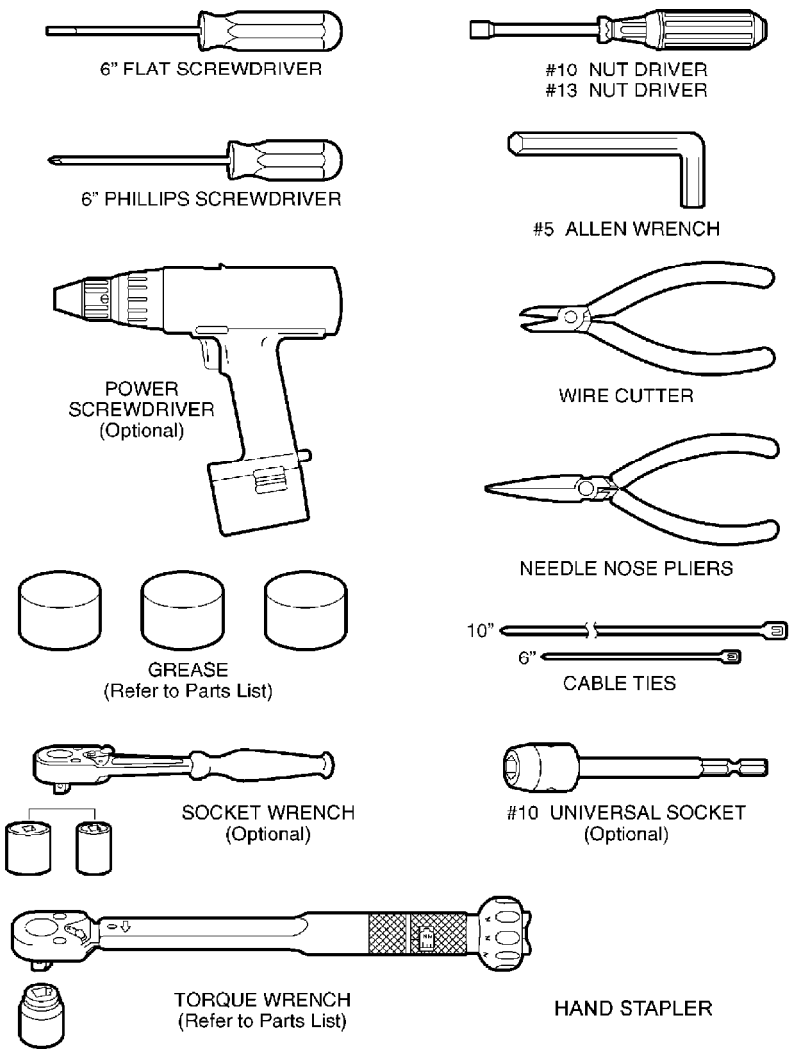

5. ACTUAL WIRING DIAGRAM

5.1. Massage mechanism

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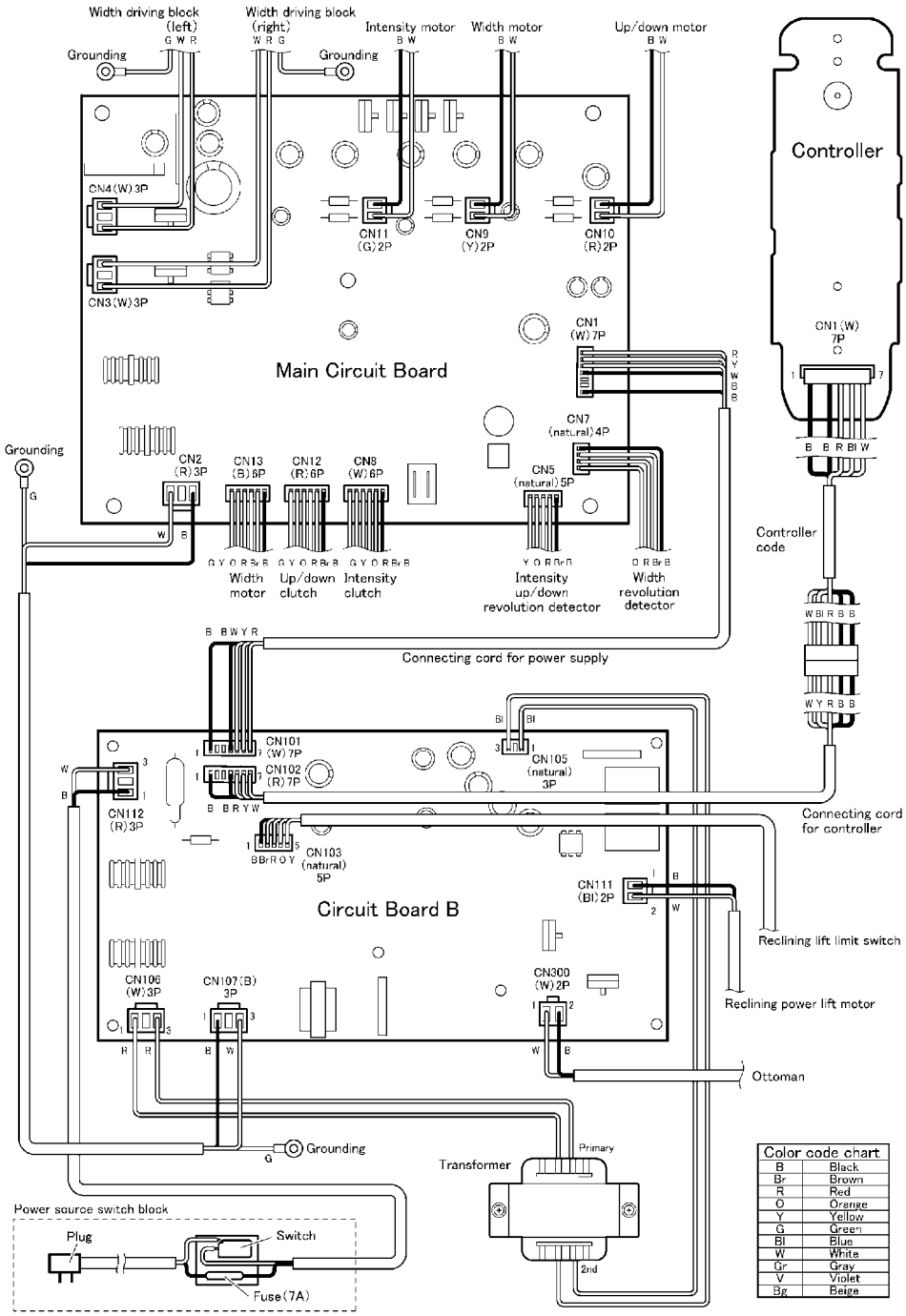

6. DISPLAY METHOD OF MASSAGE BLOCK TOTAL USE TIME AND OPERATION TIME

Total use time

While pushing the + and the - intensity adjustment buttons simultaneously, turn on the power switch and continue to hold the buttons for approximately 5 seconds. Release after the on/off

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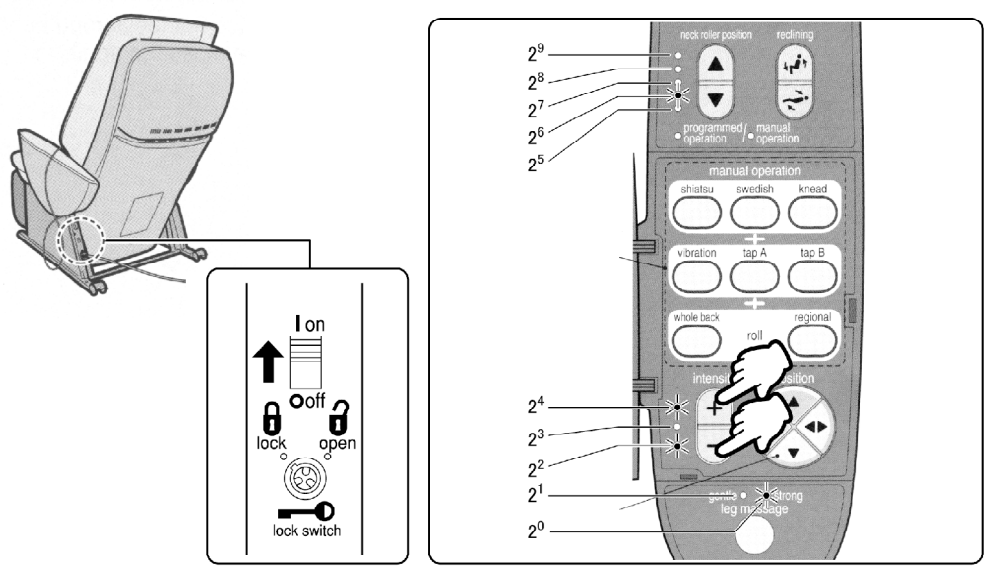
LED lights up.
***When replacing the Main Circuit PCB, the use time is counted to zero because the use time is memorized in Main Circuit PCB.**
***When pushing on/off button, the operation returns to normal mode.**



Display method
Display it by utilizing LEDs of controller.
e.g. In the above case, ($2^0 + 2^2 + 2^4 + 2^6$) × 5 = (1 + 4 + 16 + 64) × 5 = 425 hours.
It is possible to indicate up to 5,115 hours.
To read the each operation function, push the following buttons after reading the total use time.

Chart for reading each function use time

Button operation	Function for reading use time	LED display for confirming function
Shiatsu	Shiatsu	Shiatsu LED lights up
Swedish	Swedish	Swedish LED lights up
Kneading	Kneading	Kneading LED lights up
Vibration	Vibration	Vibration LED lights up
Tapping A	Tapping A	Tapping A LED lights up
Tapping B	Tapping B	Tapping B LED lights up
Whole back rolling	Whole back rolling	Whole back rolling LED lights up
Regional rolling	Regional rolling	Regional rolling LED lights up

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7. MOTION OF THE CLUTCH AND BELT BASED ON VARIOUS MASSAGER OPERATIONS.

Massager operation and belt motion

Belt / Massage operation	Intensity adjustment belt	Massage belt	Tapping belt	Up/down belt
Shiatsu, Swedish, Kneading	×	○	×	×
Kneading and rolling	×	○	×	○
Rolling	×	×	×	○
Tapping	×	×	○	×
Tapping and rolling	×	×	○	○
Width adjustment	×	○	×	×
Intensity adjustment	○	○	×	×

○ : Power is transmitted to the shaft.
× : Power is not transmitted to the shaft.
*Idling : Although the pulley is rotating, power is not transmitted to the shaft.

Massager operation and clutch motion

Clutch / Massage operation	Intensity clutch	Massage clutch	Tapping clutch	Up/down clutch
Shiatsu, Swedish, Kneading	×	○	×	×
Kneading and rolling	×	○	×	○
Rolling	×	×	×	○
Tapping	×	×	○	×
Tapping and rolling	×	×	○	○
Width adjustment	×	○	×	×
Intensity adjustment	○	×	×	×

○ : Electrically ON
× : Electrically OFF

8. MASSAGER UP/DOWN SENSOR GEAR ADJUSTMENT METHOD

When the massager is removed from the chair, the position of the up/down sensor gear changes, resulting in a change of the up/down stop position.
When installing the massager on the back frame, be sure to adjust the position with the up/down

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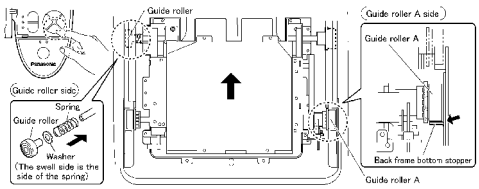
detection gear.

● **Up/down sensor gear position adjustment procedure**

To make an adjustment, refer to the massager removing method (the back frame is tilted from the chair).

1. **Before mounting, the massager on the back frame must be moved down to the lowest position by setting the controller manual operation MASSAGE HEAD ADJUSTMENT button to DOWN.**
2. **Install a washer and a spring to the guide roller G in the left side and mount the massager on the lowest position of the back frame.**



3. **Turn the hex nut M6 counterclockwise and move the massager upward.**
4. **Make sure that the massager has been mounted horizontally by moving the massager to the position shown in the Figure.**
   ***Unless the massager has been mounted horizontally, an abnormal sound or problem may occur.**
5. **Move it up to the highest position (until the massager stops) by setting the controller manual operation MASSAGE HEAD ADJUSTMENT button to up.**
6. **Peeping into the square hole of the back frame, check the position of the massager to adjust.**
   ***One thread of the up/down detection gear gives a stroke change of 4mm.**

When the massager has been raised excessively : Turn the up/down sensor gear counterclockwise to adjust.

When the massager has been lowered excessively : Turn the up/down sensor gear clockwise to adjust.

While adjusting the distance between the square hole and Guide

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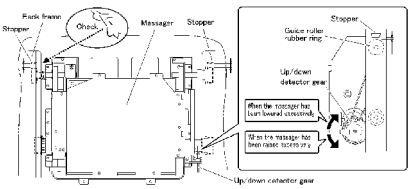
roller assy. to 10mm, check by using the up/down adjustment button found on the manual operation panel of the controller.

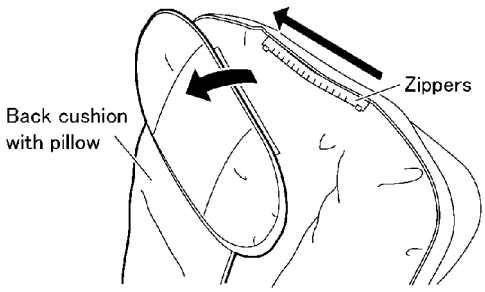
7. **Install the rail piece A and B, and tighten uniformly the set screws (left and right, 3 pcs. each).**
8. **Using the manual operation of the controller, conduct the rolling operation. Set the massage heads adjustment switch to level 1, and check the up/down stroke.**



9. DISASSEMBLY AND ASSEMBLY INSTRUCTION / (COSMETIC PART AND CHAIR CONSTRUCTION)

9.1. Removing the Head rest, Back rest cushion, Arm rest

1. **Unzip the zippers and remove the Back cushion with pillow.**



2. **Remove nine brush clips on each sides, which fix the Arm rest left and the right, with a slotted screwdriver.**
   This procedure is unnecessary so as to remove the Seat.

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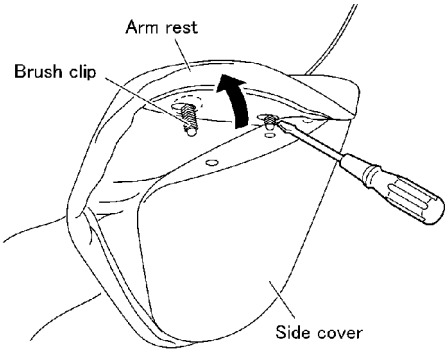
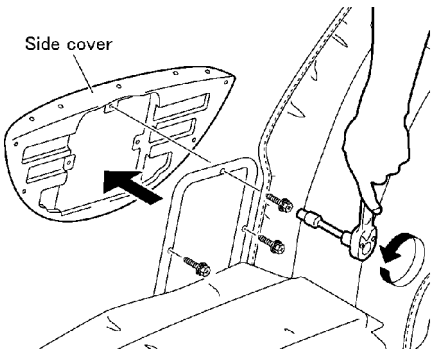
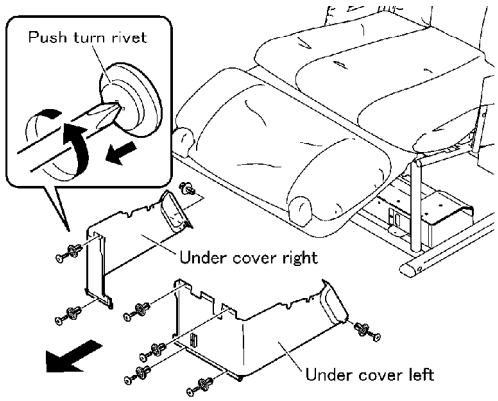


3. Remove three screws on each sides, which fix the Side covers, and remove the Side covers.
This procedure is unnecessary so as to remove the Seat.



4. Remove eight Push return rivets, which fix the Under cover left and the right, with a crossed screwdriver and remove the Under cover left and the right.



5. Push the core of the Push rivets(4pcs) with screwdrivers, etc. and

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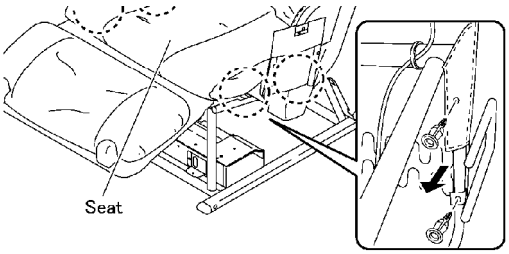
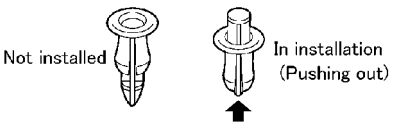
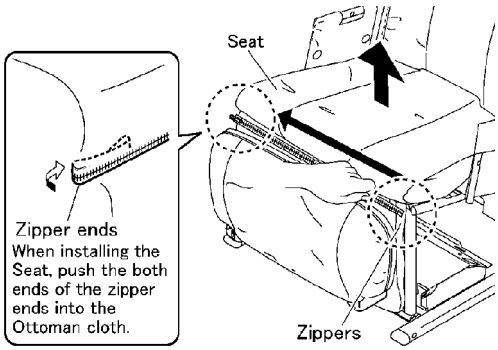
remove them.



Be sure to push out the core of the Push rivet before installing

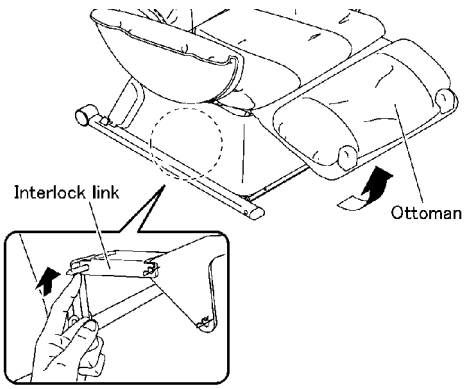


6. Remove the Ottoman from the Seat and cut the Insulated tie and remove the Seat.



9.2. Removing the Massage mechanism block

1. Lift the Ottoman a little bit and push up the Interlock link and remove it.



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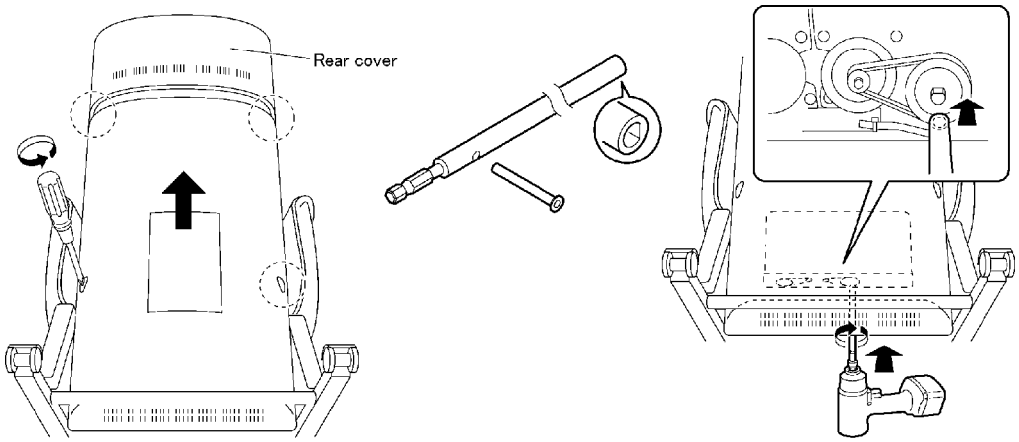
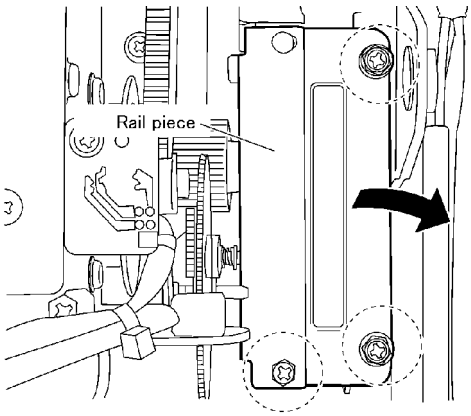
2. Lift the Ottoman a little bit and push up the Interlock link and remove it.



3. Remove three Rail piece installation screws, and remove the Rail piece.



4. Remove four Cover for P.C.B. installation screws, and remove the Cover for P.C.B.

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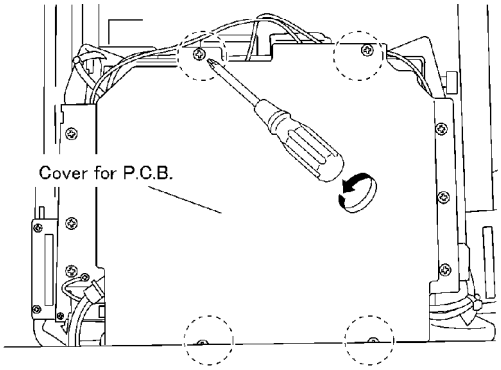
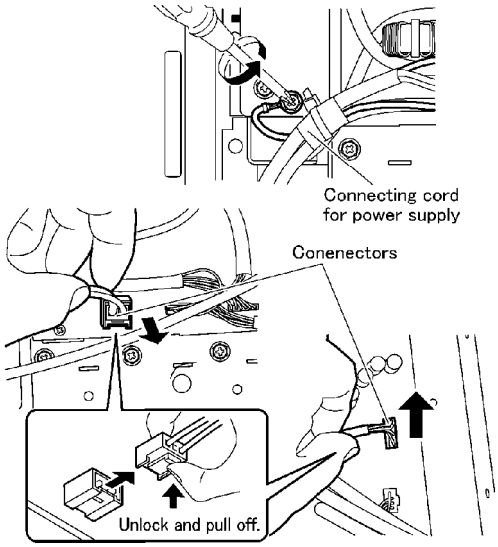


5. Remove the Connecting cord for power supply, one screw, and two connectors.



6. Remove two plastic rivets on the Massage mechanism cover and take off the Message mechanism cover and remove the Cover clip.

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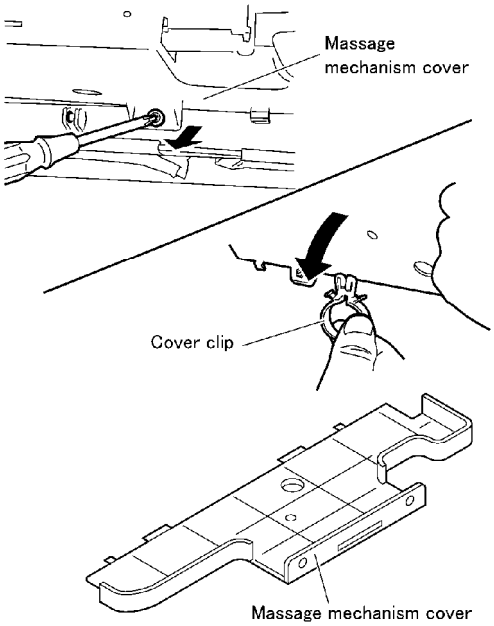
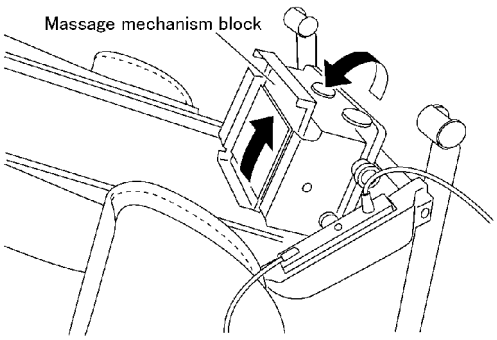


7. Lift up the bottom of the Massage mechanism block as the figure and take it off.

- Be sure to check if there is more approx. 9cm between each kneading balls because if the distance is short you may not be able to take away the block obstructed by the bottom metal piece of the Rear frame.

- If the distance is less than 9cm, adjust the distance moving the Width belt on the right side of the Massage mechanism block using fingers.



9.3. Removing the parts of the Massage mechanism block

You can work from 1. to 12. without taking away the Massage mechanism block.

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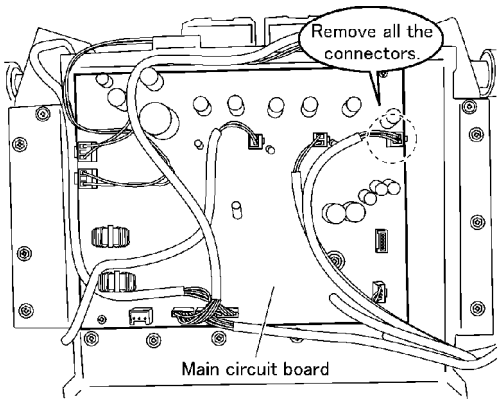
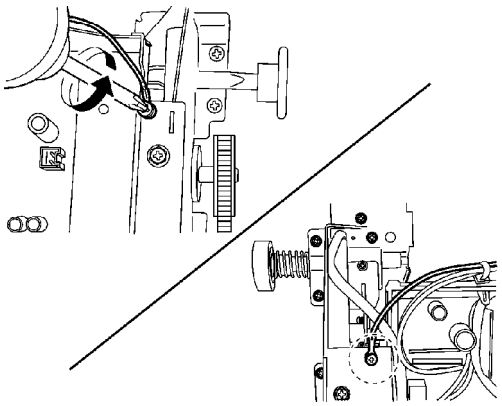
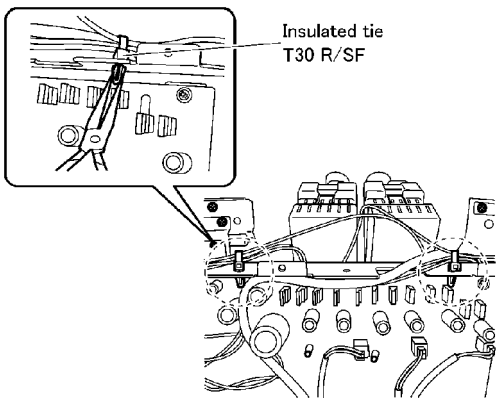
1. Remove connectors on the Main circuit board.



2. Remove the ground wire and two screws.



3. Remove two Insulated ties.



4. Remove two screws and three Circuit board spacers.

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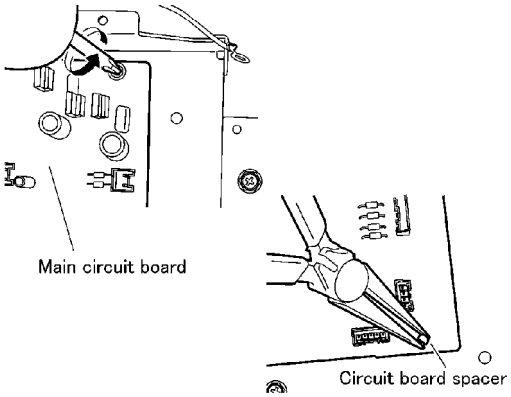
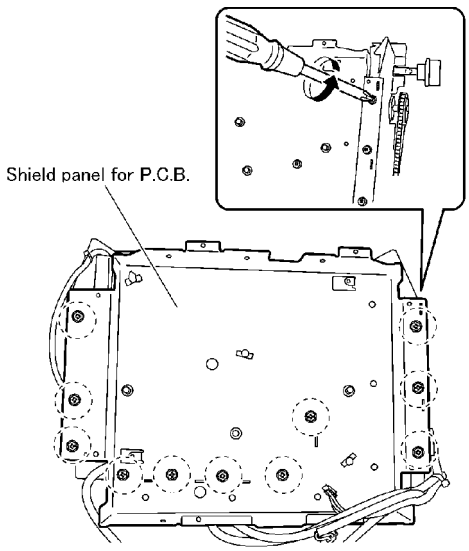
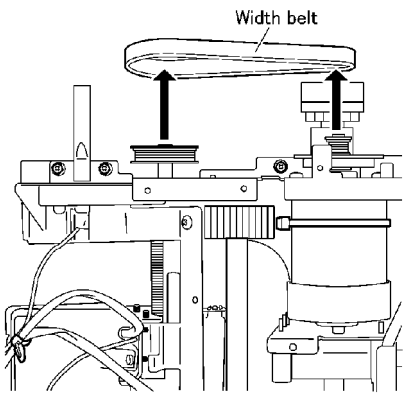


5. Remove 11 screws and take off the Shield panel for P.C.B.



6. Remove the Width belt.



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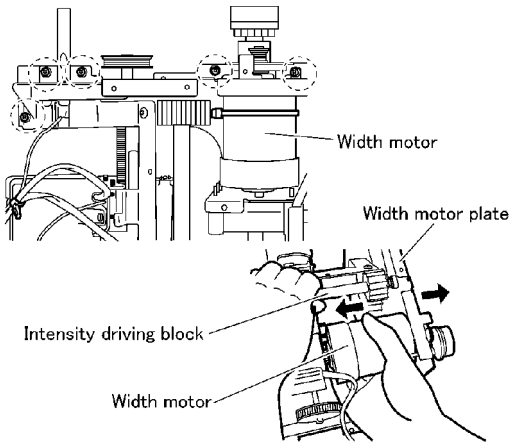
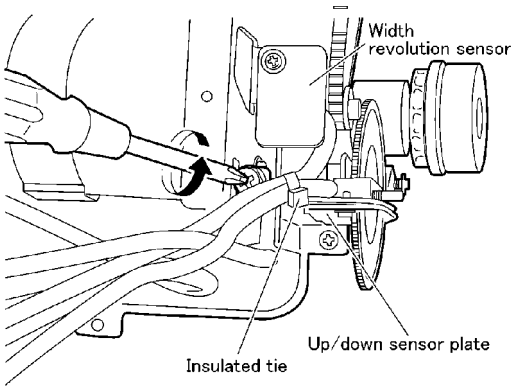
7. Cut off the Insulated ties and remove five screws and disconnect the Intensity driving block holding the Width motor.



8. Cut off the Insulated tie and unscrew a screw on the Up/down sensor plate and remove the Up/down sensor plate.

- When you take off the Massage mechanism block directly from the chair, be careful not to damage the Up/down sensor, which may hit the edge of the Back frame.



9. Unscrew a screw and take off the Width revolution sensor.

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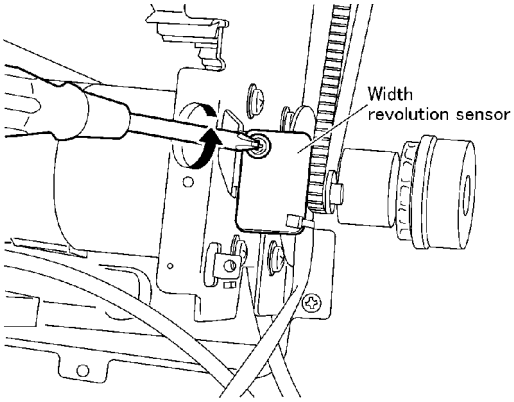
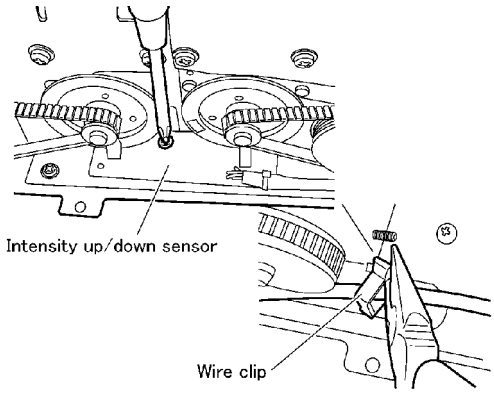
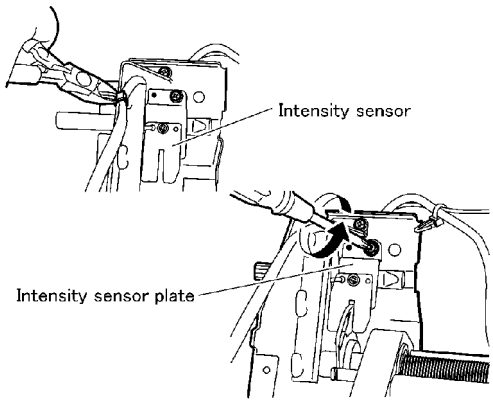


10. Unscrew a screw and unhook the Wire clip and remove the Intensity up/down revolution sensor.



11. Cut off the Insulated tie and unscrew a screw and take off the Intensity plate.



12. Unscrew seven screws and remove the Width driving block. With

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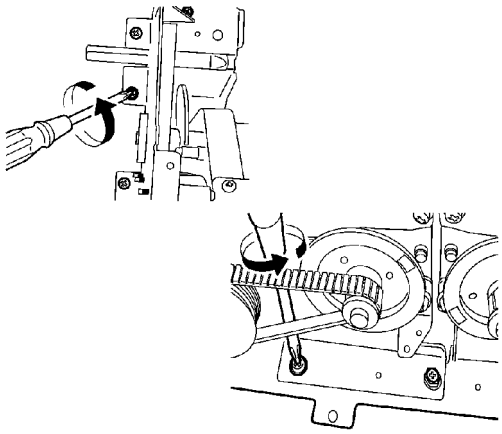
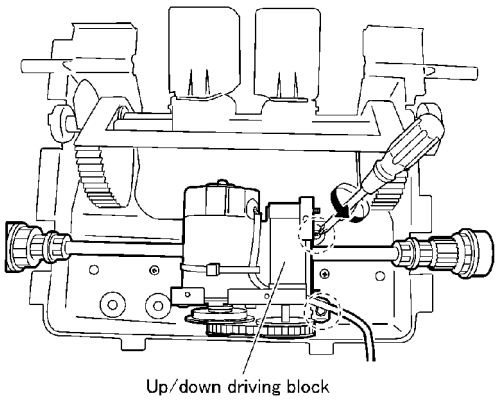
this condition, you can take off the Kneading ball block.



13. Unscrew two screws and remove the Up/down driving block.



9.4. Assembly

9.4.1. Adjustment of the Up/down sensor gear

When the massager is removed from the chair, the position of the up/down detection gear changes, resulting in a change of the up/down stop position.
When installing the massager on the back frame, be sure to adjust the position with the up/down detection gear.

- **Up/down detection gear position adjustment procedure**

To make an adjustment, refer to the massager removing method (the back frame is tilted from the chair).

1. Before mounting, the massager on the back frame must be moved down to the lowest position by setting the controller manual

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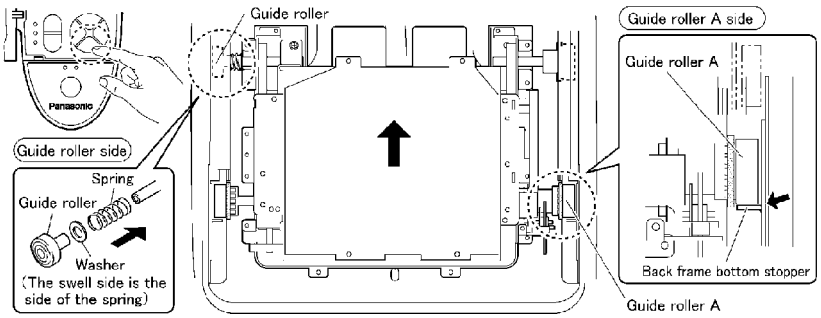
operation Massage head adjustment button to DOWN.

2. Install a washer and a spring to the guide roller G in the left side and mount the massager on the lowest position of the back frame.



3. Turn the hex nut M6 counterclockwise and move the massager upward.
4. Make sure that the massager has been mounted horizontally by moving the massager to the position shown in the Figure.
   *Unless the massager has been mounted horizontally, an abnormal sound or problem may occur.
5. Move it up to the highest position (until the massager stops) by setting the controller manual operation Massage head adjustment button to up.
6. Peeping into the square hole of the back frame, check the position of the massager to adjust.
   *One thread of the up/down detection gear gives a stroke change of 4mm.

When the massager has been raised excessively : Turn the up/down detection gear counterclockwise to adjust.

When the massager has been lowered excessively : Turn the up/down detection gear clockwise to adjust.

While adjusting the distance between the square hole and Guide roller assy. to 10mm, check by using the up/down adjustment button found on the manual operation panel of the controller.

7. Install the rail piece A and B, and tighten uniformly the set screws (left and right, 3 pcs. each).
8. Using the manual operation of the controller, conduct the rolling

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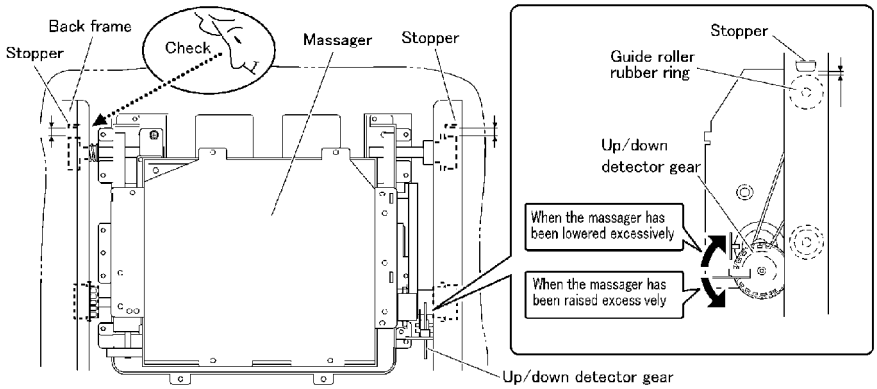
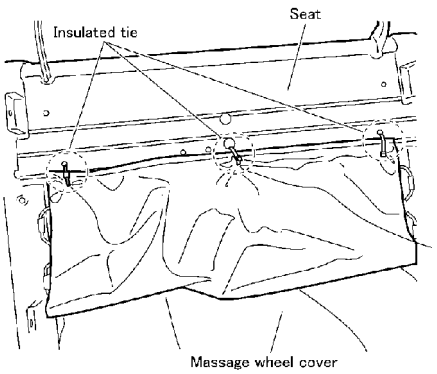
operation. Set the massage heads adjustment switch to level 1, and check the up/down stroke.



9.5. Removing the Massage wheel cover

1. **Follow the procedure 4. to 6. of 10.1. Removing the Head rest, Back rest cushion, Arm rest.**
2. **Cut off the Insulated tie on the Seat.**



3. **Unscrew six screws.**
   The work will be easy if the Massage mechanism block is take out. If you work with the Massage mechanism block on the chair, move the Massage mechanism block up and down and unscrew six screws.

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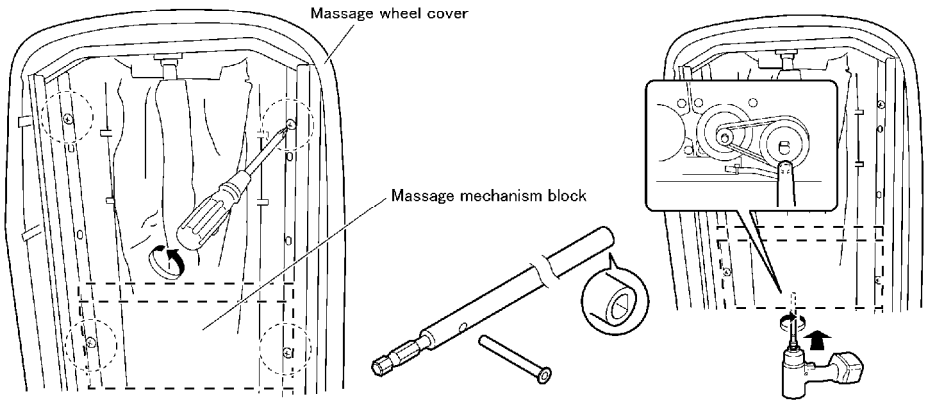
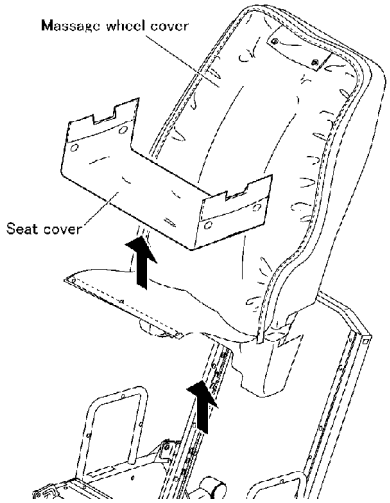
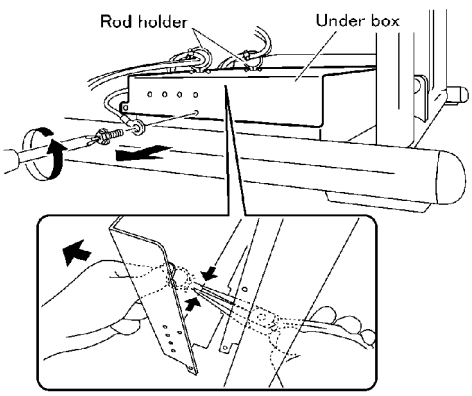


4. Take off the Seat and take off the Massage wheel cover.



9.6. Removing the Under box

1. **Follow the procedure 4. of 9.1. Removing the Head rest, Back rest cushion, Arm rest.**
2. **Unscrew the screw and pull out a Rod holder and slide the Under box up/right outward.**



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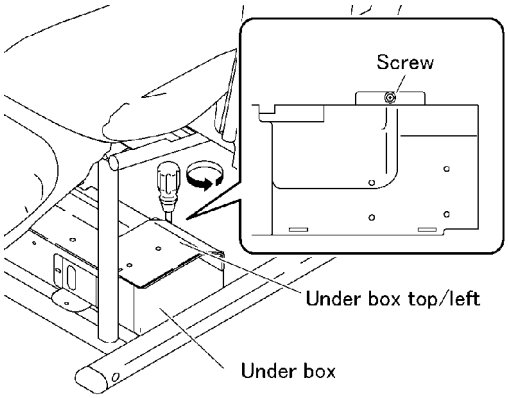
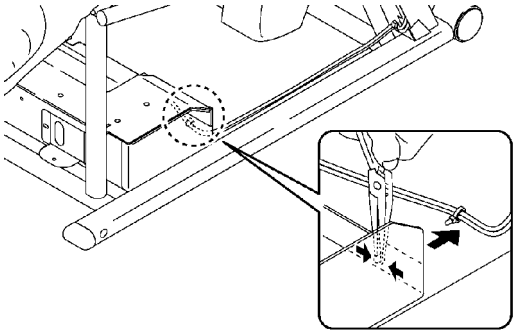
3. Unscrew the screw.

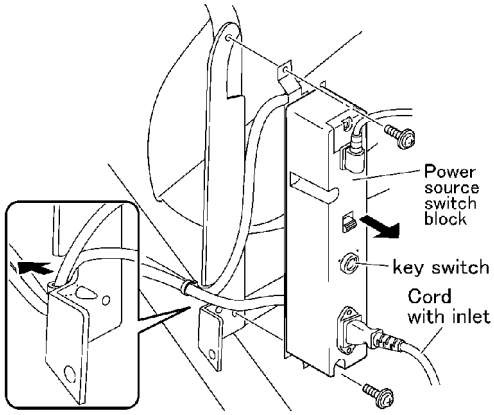


4. Cut off the Insulated tie (T30R/SF) binding the Connecting cord for the power source, etc.



9.7. Removing the Power source switch block

1. Unscrew two screws and cut off the Insulated tie.



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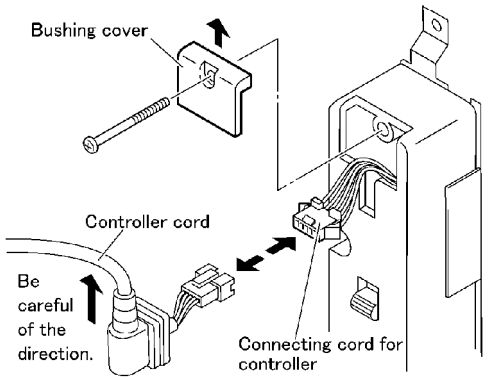
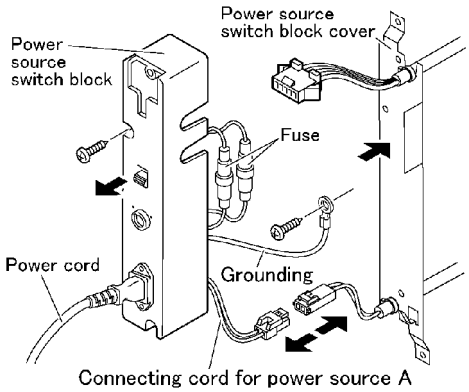
2. Remove the Bushing cover and pull out the Controller cord and take off the Connector and take off the Controller block.



3. Unscrew two screws and cut off the Insulated tie.



4. After removing screws, you can remove the Micro switch, Power source cord, Fuses, etc.

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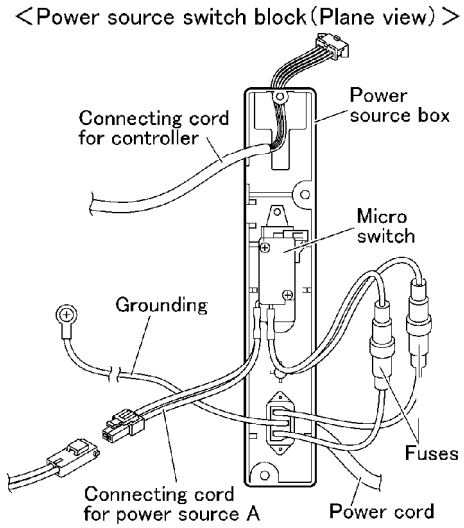
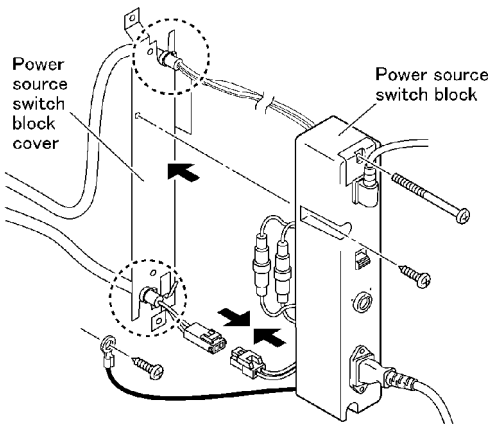


Caution when assembling

1. **Hook the cord on the Power source box cover as the figure and fix the Power source switch block with two screws.**



2. **Fix the Power source switch block plate with two screws so that the cords will be stored through the ditch, and bind the Insulated tie to the Main frame, which is bundling cords.**
   First fix the Power source switch, then bundle cords with Insulated tie and install it to the Main frame.

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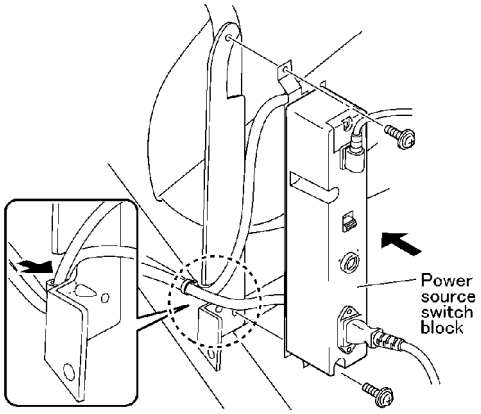
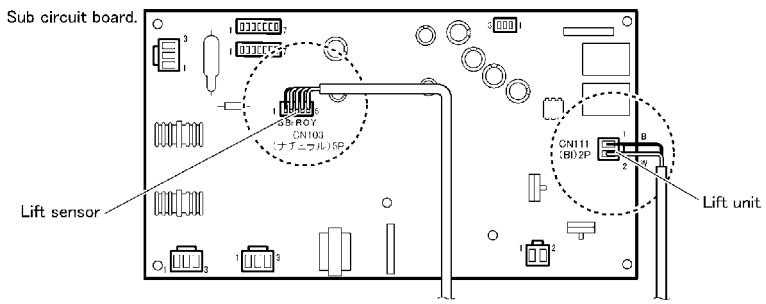


9.8. Removing the Ottoman lift unit

1. **Follow the procedure 1. to 7. of 9.2. Removing the Massage mechanism block.**

   - It is safer and more secure if the Massage mechanism block is totally moved down.

2. **Follow the procedure 4. of 9.1. Removing the Head rest, Back rest cushion, Arm rest.**
3. **Follow the procedure 2. to 3. of 9.6. Removing the Under box.**
4. **Take off two connectors(CN111, CN103) as the figure.**



5. **Take off the Hinge pin large and the Snap pin large, and take off the Lift unit.**

   - It will be easier to take off the Lift unit if moving down the Massage mechanism block first.

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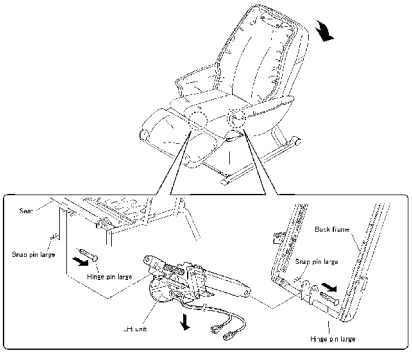
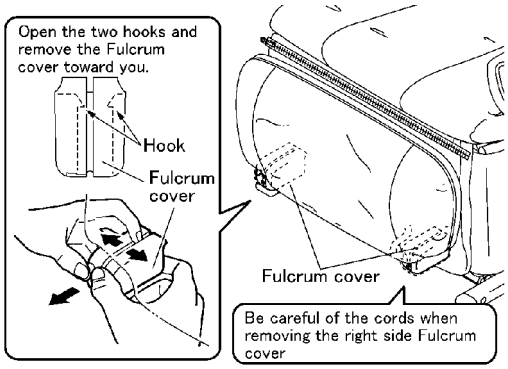
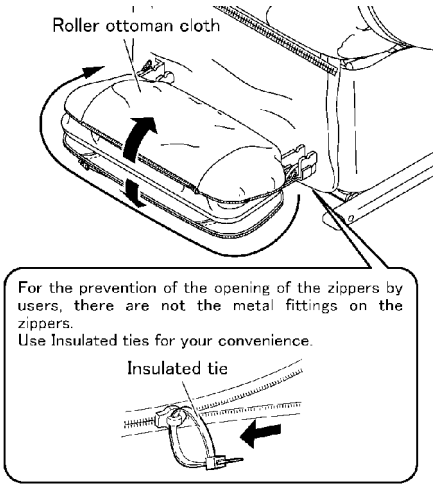


9.9. Removing the Roller ottoman

1. Lifting the Ottoman, remove the Fulcrum cover.


Open the two hooks and remove the Fulcrum cover toward you.
Hook
Fulcrum cover
Fulcrum cover
Be careful of the cords when removing the right side Fulcrum cover

2. Unzip the zippers of the Roller ottoman cloth and remove it.


Roller ottoman cloth
For the prevention of the opening of the zippers by users, there are not the metal fittings on the zippers.
Use Insulated ties for your convenience.
Insulated tie

3. Remove six screws from the Ottoman cloth, and remove the Ottoman cloth, and remove six screws from the Roller ottoman case B, and remove the Roller ottoman case B.

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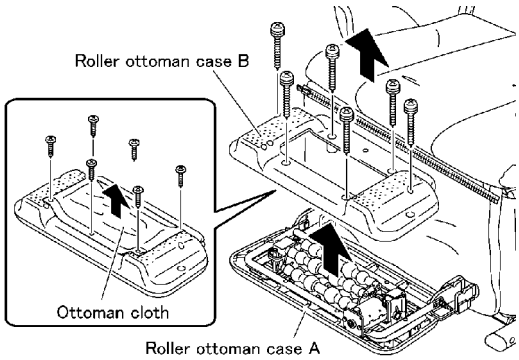
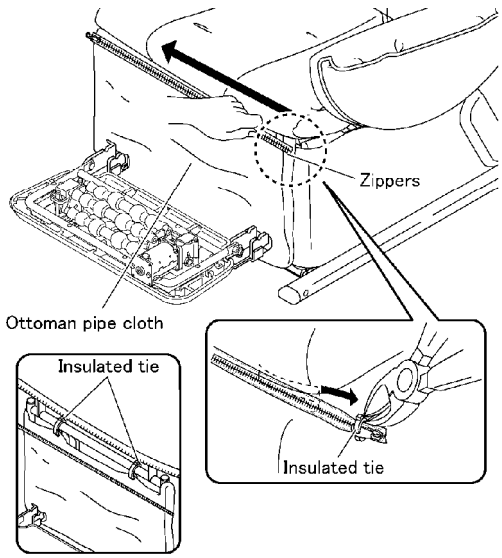
Replacing the Roller ottoman motor
To replace the Roller ottoman motor:

- Follow the procedure 4 to 5 of Removing the Head rest, Back rest cushion, Arm rest.

- Follow the procedure 2 to 3 of Removing the Under box and remove the connector of the Roller ottoman(Sub circuit CN300 white).



4. Pull out the zipper ends connecting the Seat and the Ottoman, and cut the Insulated tie, and unzip the zippers.
Cut the Insulated tie connecting the Ottoman pipe cloth and Ottoman pipe,and pull down the Ottoman pipe cloth.



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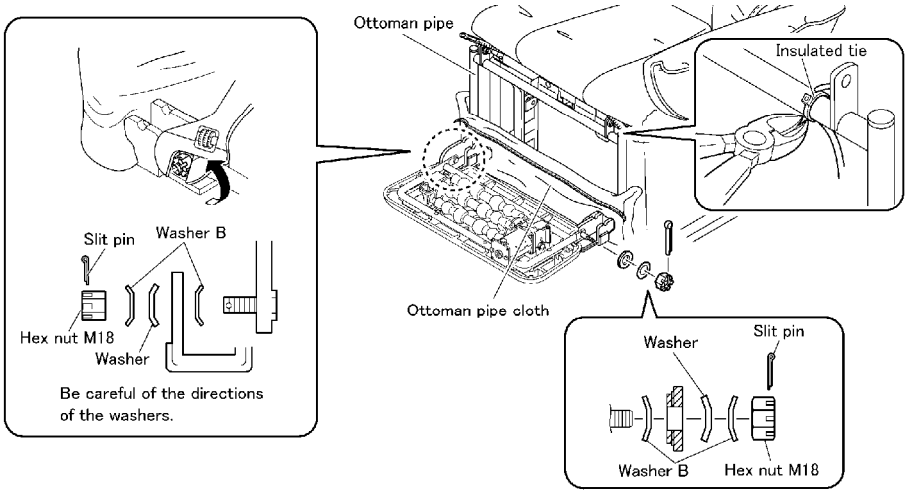
5. Cut two Insulated ties on the Ottoman pipe, and pull out the cord. Pull out the slit pin.



6. Remove the Shaft holder case screws (4pcs), Roller ottoman gear box screws (4pcs), and remove the Roller and the Roller ottoman motor.

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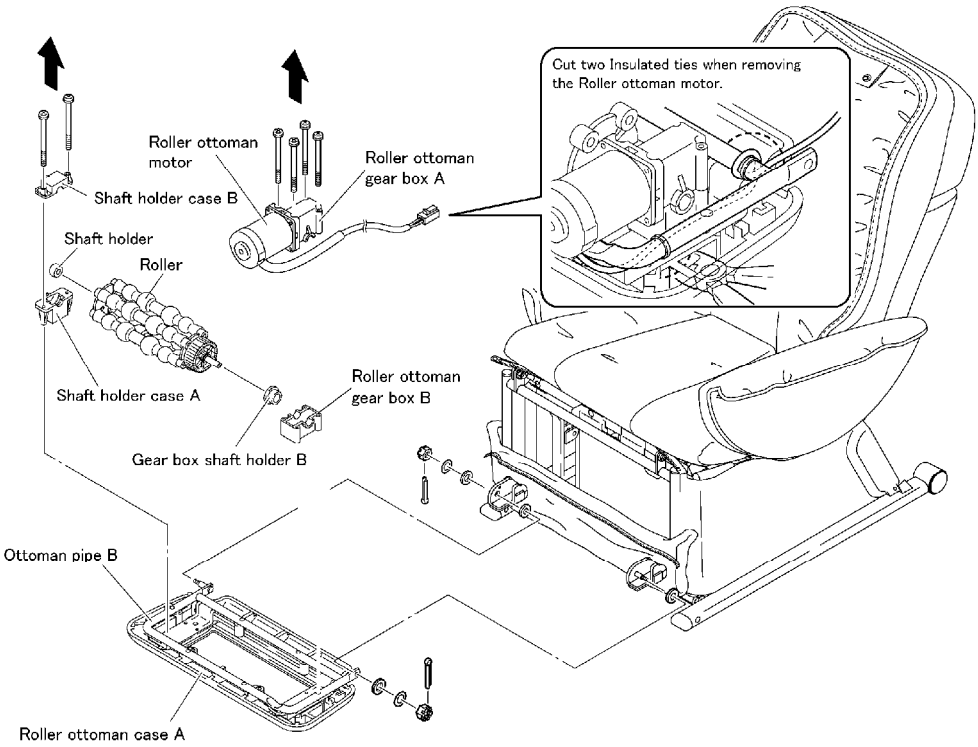
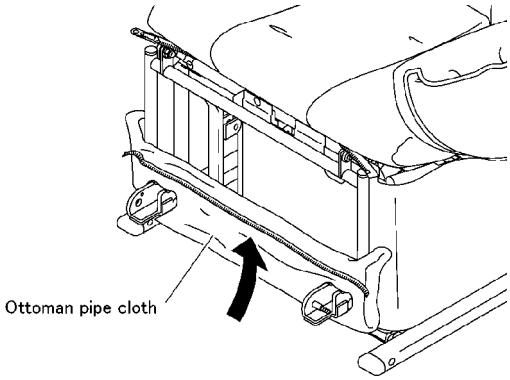

Cut two Insulated ties when removing the Roller ottoman motor.
Roller ottoman motor
Roller ottoman gear box A
Shaft holder case B
Shaft holder
Roller
Shaft holder case A
Roller ottoman gear box B
Gear box shaft holder B
Ottoman pipe B
Roller ottoman case A

Tips of assembling

1. Attach the Ottoman pipe cloth.



2. Attach the parts to the Ottoman pipe B and tie the cord with two Insulated ties.

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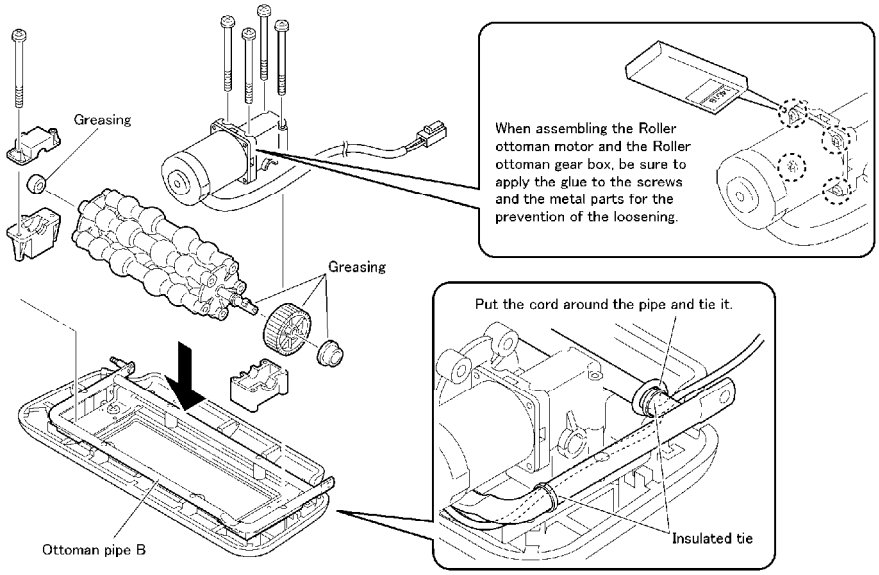
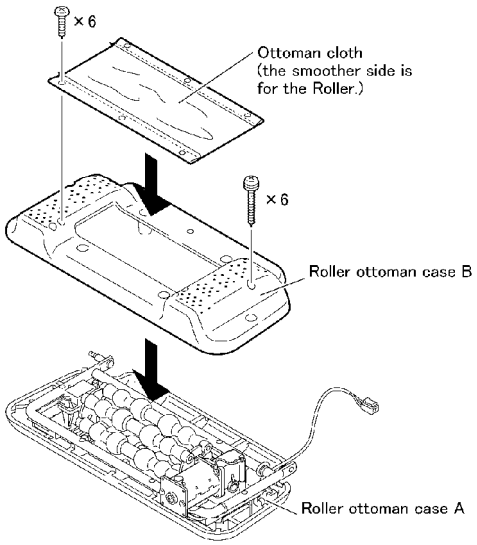

Greasing
Greasing
When assembling the Roller ottoman motor and the Roller ottoman gear box, be sure to apply the glue to the screws and the metal parts for the prevention of the loosening.
Put the cord around the pipe and tie it.
Insulated tie
Ottoman pipe B

3. Screw the Roller ottoman case B, and the Roller ottoman cloth(each six screws).



4. Zip the Roller ottoman cloth.

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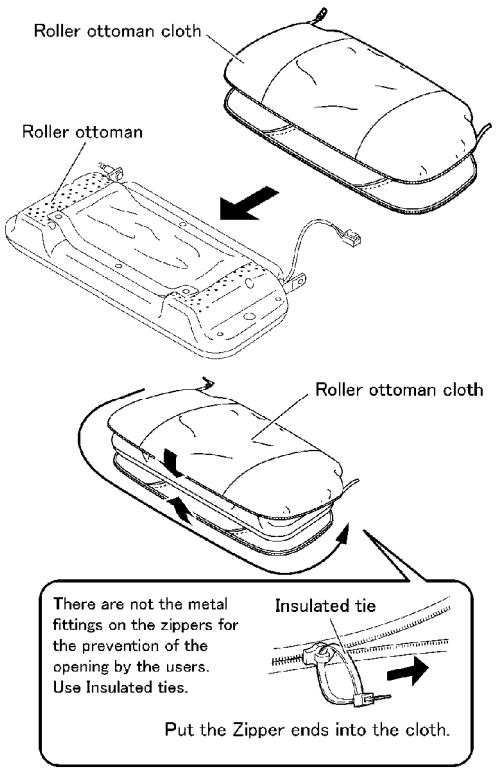
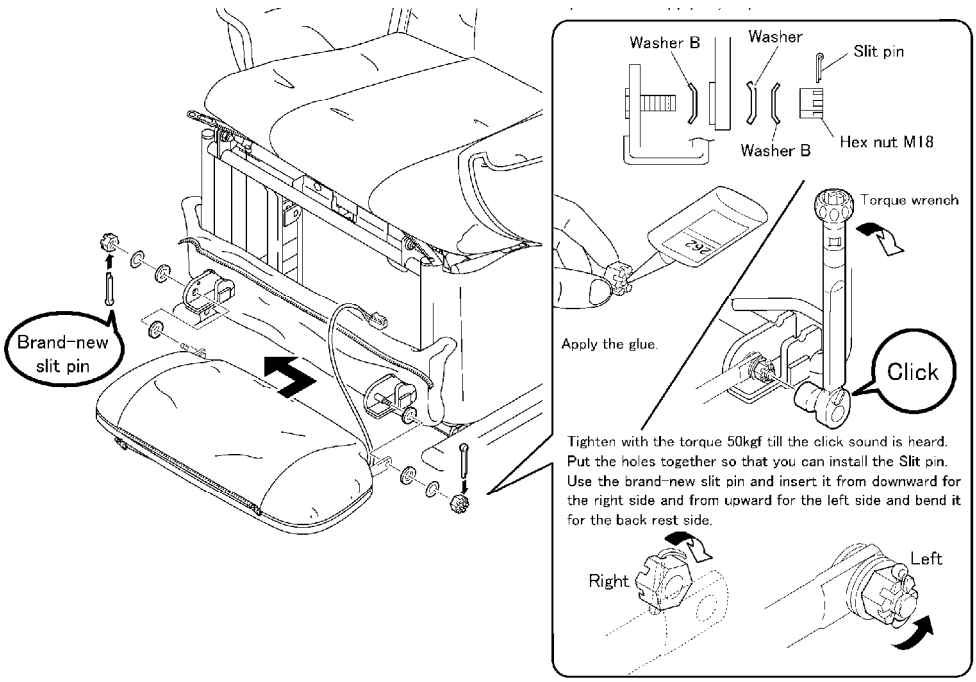

Roller ottoman cloth
Roller ottoman
Roller ottoman cloth
There are not the metal fittings on the zippers for the prevention of the opening by the users. Use Insulated ties.
Insulated tie
Put the Zipper ends into the cloth.

5. Install the Roller ottoman unit to the Ottoman pipe with the Hex nut M8.


Brand-new slit pin
Washer B
Washer
Slit pin
Washer B
Hex nut M18
Torque wrench
Apply the glue.
Click
Tighten with the torque 50kgf till the click sound is heard.
Put the holes together so that you can install the Slit pin.
Use the brand-new slit pin and insert it from downward for the right side and from upward for the left side and bend it for the back rest side.
Right
Left

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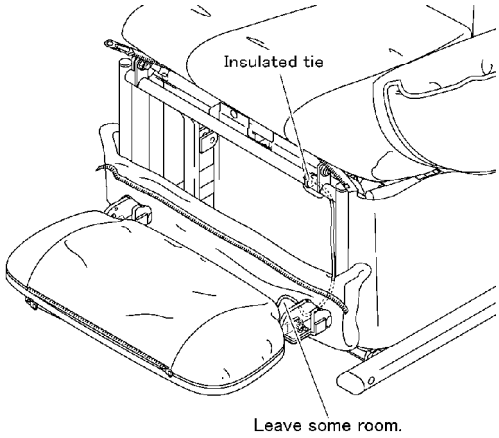
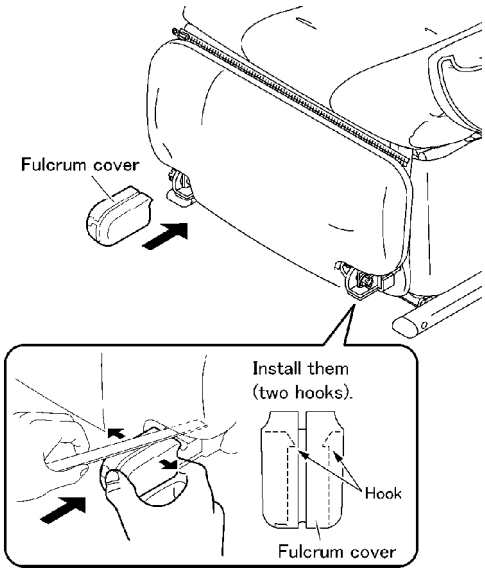
6. Tie the cord to the Ottoman pipe with the Insulated tie, and zip it.



7. Install the Fulcrum cover.



10. EXAMINATION AFTER INSPECTION AND PREPAIRING

- Check all operations with the massage block operation test switch.
- Check that the massage block operates using the controller.
- Check that the massage block operates loaded (i.e. sit in the chair

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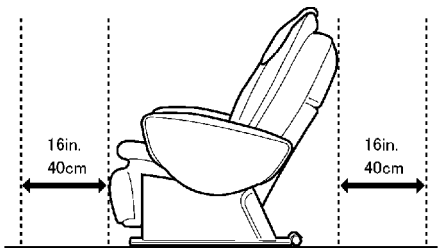
and check).

- Upon finishing repairs, when placing the chair, make sure that it has enough space to fully recline. There should be more than 40cm between the wall and the chair when in the upright position.



11. TROUBLESHOOTING

11.1. Main unit

	Q	A
1	When operating the chair, there are various strange noises. Is the chair broken ?	●The massage lounger does serveral massage functions such as kneading, rolling and tapping. The built-in massager block 10kg makes various sounds, none of which mean there is a problem. These sounds come from the normal mechanical operation. Please check and understand the Operation Manual so that these various sounds can be explained.
2	The demo chair I tried before buying did not make strange noises.	●In the case of the demo chair, the noise from the surrounding in the store was loud enough to prevent you from hearing the normal noises from the chair. At home, the noises are more noticeable as the surrounding is quiet.
3	The message wheels stop in the middle of operation. Or, the massager block stops and all the controller lamps begin to blink.	●So that the massager block can move freely up and down, confirm that there are no obstacles in the rear of the chair, including the wall. Also, if the massage wheels encounter a strong counter force, they are designed to stop. ●The motion of the massage wheels (drive pipe rotation) is checked by the micro computer. If the signal of the drive pipe rotation stops for more than 5 seconds, all the LED on the controller will blink and the massager block will stop. ●If the massage wheels stop, and all the lamps on the controller begin to blink, push the ON/OFF button to restart the controller. A load of more than 120kg should be avoided, as the massager block is designed to stop automatically when overloaded.

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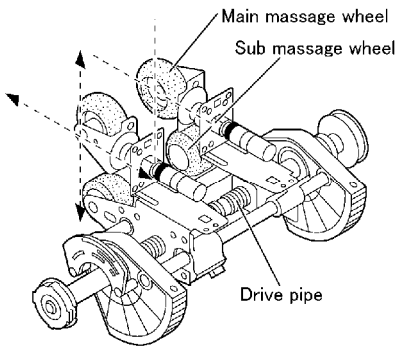
	Customer's claim	Remedy
1	A squeaking sound between the drive pipe and the up/down shaft due to overload stress.	●Apply the Molycoat grease to the up/down shaft.
2	A squeaking sound caused by the massage wheel and massage wheel cover rubbing against one another.	●Apply silicon spray oil to the whole back of the massage wheel cover. ●Apply silicon oil to the massage wheel surface with a cloth soaked in silicon oil. (If oil is sprayed directly to the massage wheel, it may cause the massage wheel not to work properly.)
3	A squeaking sound from the gears inside the gear box due to a lack of grease.	●Apply the E-paste grease to the inside of the gear box.
4	A discrepancy in the position of the massage wheel up/down and front/rear.  	●The massage block has two main functions, kneading and tapping. These functions are operated by a linkage mechanism and are switched by an electrial clutch system. The tapping function is operated by the rotation of the tapping shaft. This tapping shaft is offset by approximately 30mm on the left and right massage wheels. This tapping shaft will stop at a random position when the massage is functioning. Because of this, the positions of the left and right massage wheels have a maximum discrepancy of 10mm up/down and front/rear. This is normal, and there is no need to be concerned.

11.2. Controller/Massage mechanism block

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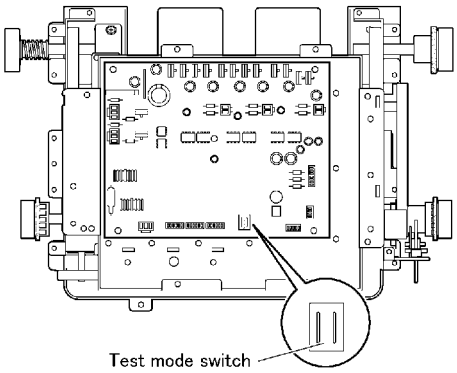

Press the test switch of the main circuit board, and check the massage block operation.

・Operation test method

1. Turn on the On/off switch on the Power source switch box.
2. Do not tun on the On/off button on the Controller.
3. Short-circuit the Test mode switch in the figure, then the operation test method starts.

●After finishing the operation test method, turn off the On/off switch on the Power switch box, then turn it on again to start the normal operation.

・Contents of Massage block test operation

1. The Massage block protrudes at its maximum width and at its weakest position and operates the back rolling.
2. The Massage block moves to the highest position, and operates the back rolling to the lowest position.
3. The Massage block moves to the middle with the back rolling, and operates the Shiatsu massage and the Swedish massage, and Kneading at one stroke each.
4. The Massage block changes the intensity mode from the strongest to the weakest while tapping.
5. The Massage block changes the width of the massaging from the widest to the narrowest to the widest while operating the Swedish massage.
6. The Massage block moves to the lowest position operating back rolling + kneading +vibration.
7. The Massage block moves to the highest position operating back rolling + Swedish.
8. The Massage block retracts.

●The retracting position will be the lowest, the widest, and the weakest.

●If something abnormal happens in the Massage block test mode such as the motor stall, the Massage block test mode ends, however the Controller test mode continues.

・Contents of Controller test operation

1. Start the Massage block test mode and at the same time confirm that all the LEDs of the Controller light up and it buzzes twice.
2. Push all buttons in turn and confirm that each LEDs light up.

You can check the data connection from the Chair to the Controller and from the Controller to the Chair in the Controller test mode.
If there is something wrong with the data transmission of the Controller, LEDs do not light nor blink.
In this case, there are the possibilities that he Controller, the Connecting cord for controller, and the Connecting cord for power supply are disconnected.

11.3. Air bags

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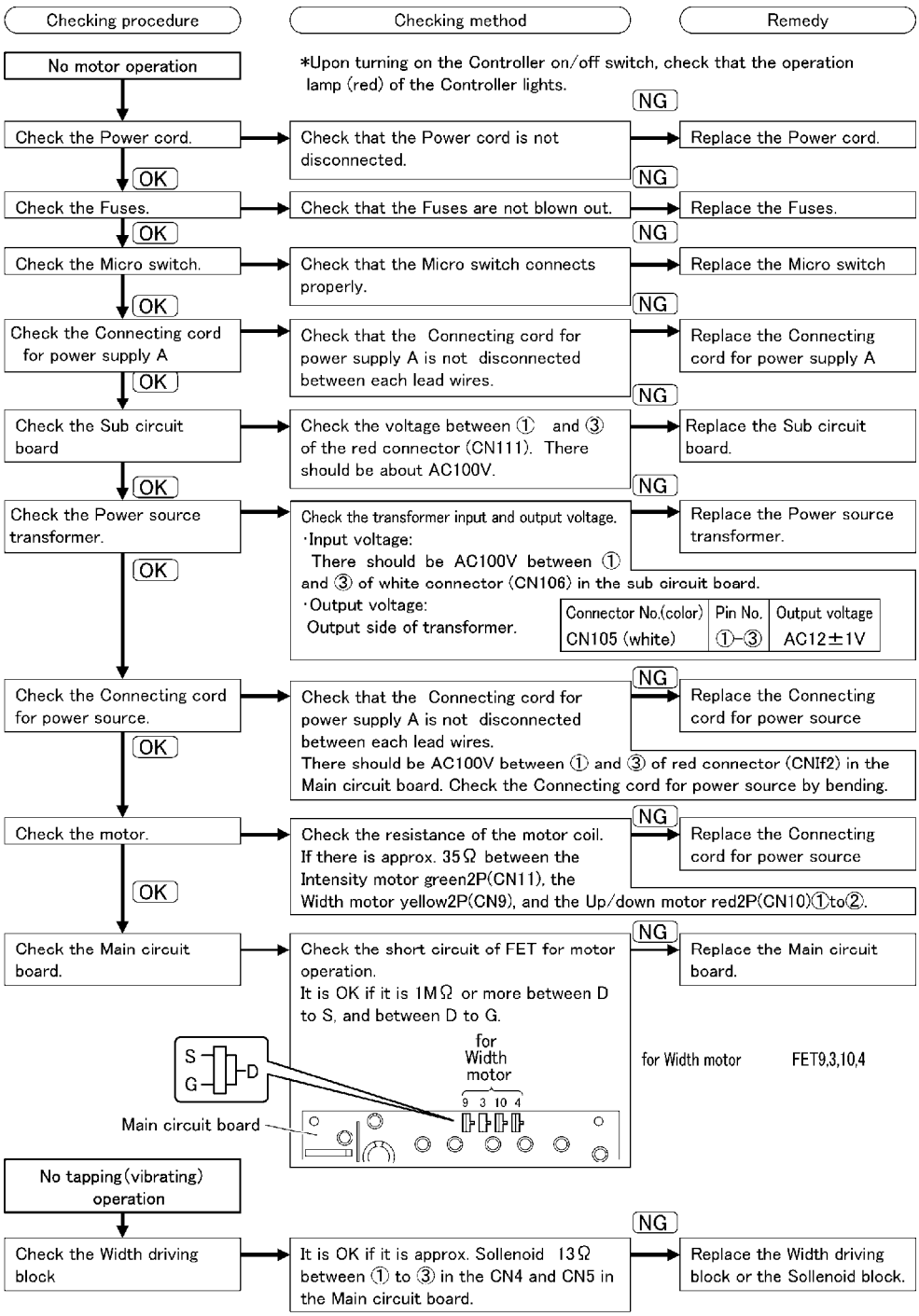
Checking procedure
Checking method
Remedy
No motor operation
*Upon turning on the Controller on/off switch, check that the operation lamp (red) of the Controller lights.
Check the Power cord.
Check that the Power cord is not disconnected.
NG
Replace the Power cord.
OK
Check the Fuses.
Check that the Fuses are not blown out.
NG
Replace the Fuses.
OK
Check the Micro switch.
Check that the Micro switch connects properly.
NG
Replace the Micro switch
OK
Check the Connecting cord for power supply A
Check that the Connecting cord for power supply A is not disconnected between each lead wires.
NG
Replace the Connecting cord for power supply A
OK
Check the Sub circuit board
Check the voltage between ① and ③ of the red connector (CN111). There should be about AC100V.
NG
Replace the Sub circuit board.
OK
Check the Power source transformer.
Check the transformer input and output voltage.
·Input voltage:
There should be AC100V between ① and ③ of white connector (CN106) in the sub circuit board.
·Output voltage:
Output side of transformer.
NG
Replace the Power source transformer.
Connector No.(color) | Pin No. | Output voltage
CN105 (white) | ①–③ | AC12±1V
OK
Check the Connecting cord for power source.
Check that the Connecting cord for power supply A is not disconnected between each lead wires.
There should be AC100V between ① and ③ of red connector (CNIf2) in the Main circuit board. Check the Connecting cord for power source by bending.
NG
Replace the Connecting cord for power source
OK
Check the motor.
Check the resistance of the motor coil.
If there is approx. 35Ω between the Intensity motor green2P(CN11), the Width motor yellow2P(CN9), and the Up/down motor red2P(CN10)①to②.
NG
Replace the Connecting cord for power source
OK
Check the Main circuit board.
Check the short circuit of FET for motor operation.
It is OK if it is 1MΩ or more between D to S, and between D to G.
NG
Replace the Main circuit board.
S
G
D
Main circuit board
for Width motor
9 3 10 4
for Width motor FET9,3,10,4
No tapping(vibrating) operation
Check the Width driving block
It is OK if it is approx. Sollenoid 13Ω between ① to ③ in the CN4 and CN5 in the Main circuit board.
NG
Replace the Width driving block or the Sollenoid block.

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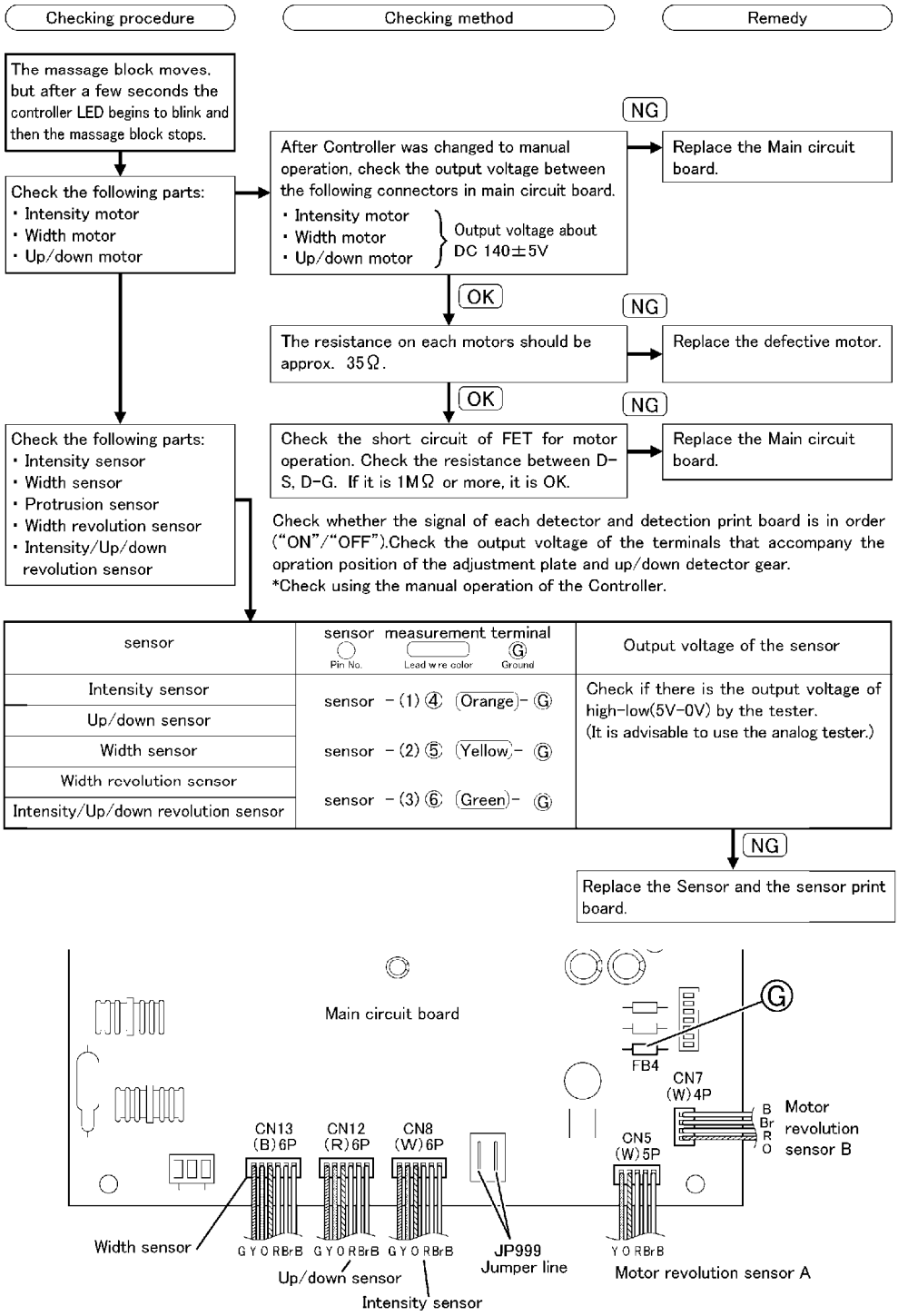

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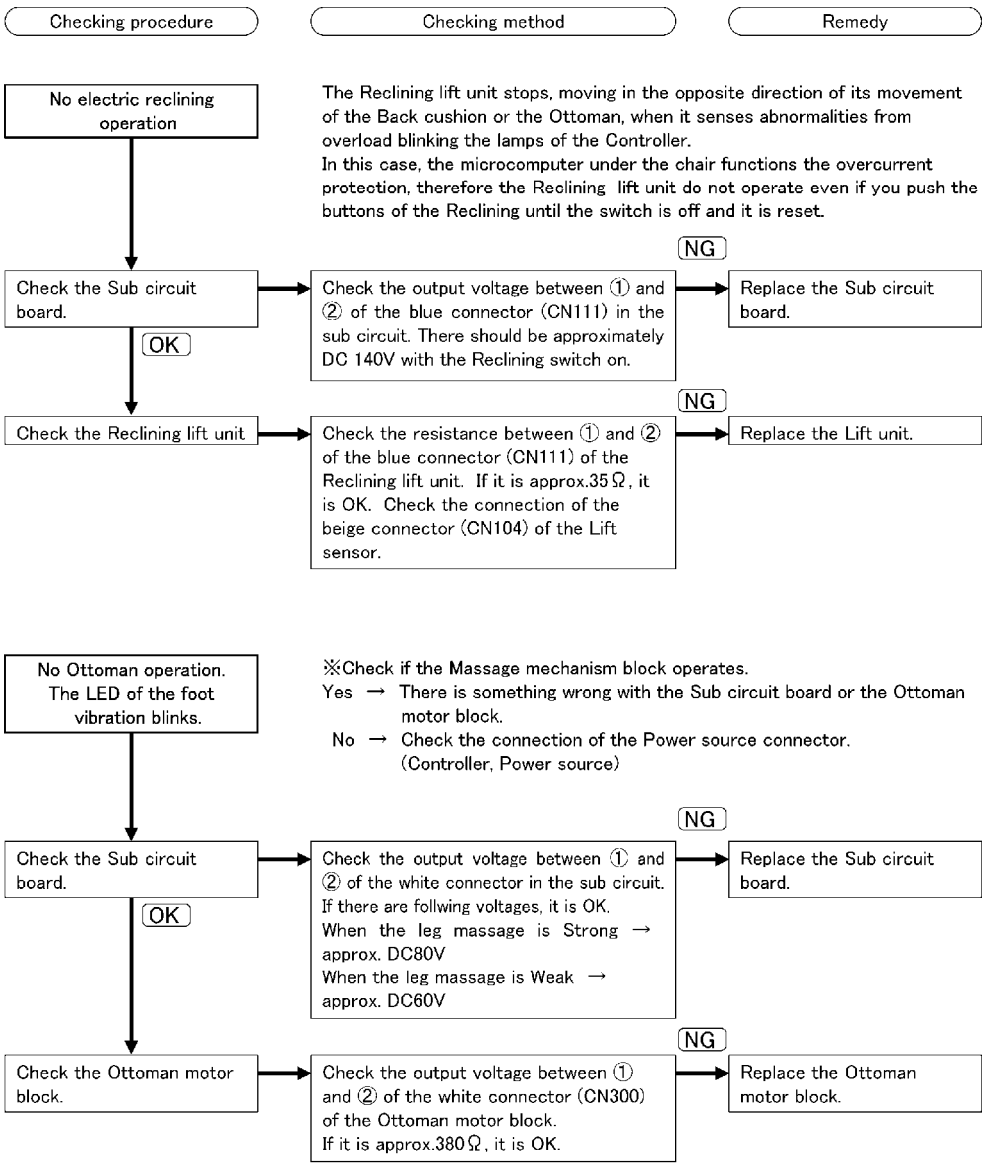
Checking procedure
Checking method
Remedy
No electric reclining operation
The Reclining lift unit stops, moving in the opposite direction of its movement of the Back cushion or the Ottoman, when it senses abnormalities from overload blinking the lamps of the Controller.
In this case, the microcomputer under the chair functions the overcurrent protection, therefore the Reclining lift unit do not operate even if you push the buttons of the Reclining until the switch is off and it is reset.
Check the Sub circuit board.
NG
Check the output voltage between ① and ② of the blue connector (CN111) in the sub circuit. There should be approximately DC 140V with the Reclining switch on.
Replace the Sub circuit board.
OK
Check the Reclining lift unit
NG
Check the resistance between ① and ② of the blue connector (CN111) of the Reclining lift unit. If it is approx.35Ω, it is OK. Check the connection of the beige connector (CN104) of the Lift sensor.
Replace the Lift unit.
No Ottoman operation. The LED of the foot vibration blinks.
※Check if the Massage mechanism block operates.
Yes → There is something wrong with the Sub circuit board or the Ottoman motor block.
No → Check the connection of the Power source connector. (Controller, Power source)
Check the Sub circuit board.
NG
Check the output voltage between ① and ② of the white connector in the sub circuit. If there are follwing voltages, it is OK.
When the leg massage is Strong → approx. DC80V
When the leg massage is Weak → approx. DC60V
Replace the Sub circuit board.
OK
Check the Ottoman motor block.
NG
Check the output voltage between ① and ② of the white connector (CN300) of the Ottoman motor block.
If it is approx.380Ω, it is OK.
Replace the Ottoman motor block.

12. EXPLODED VIEW

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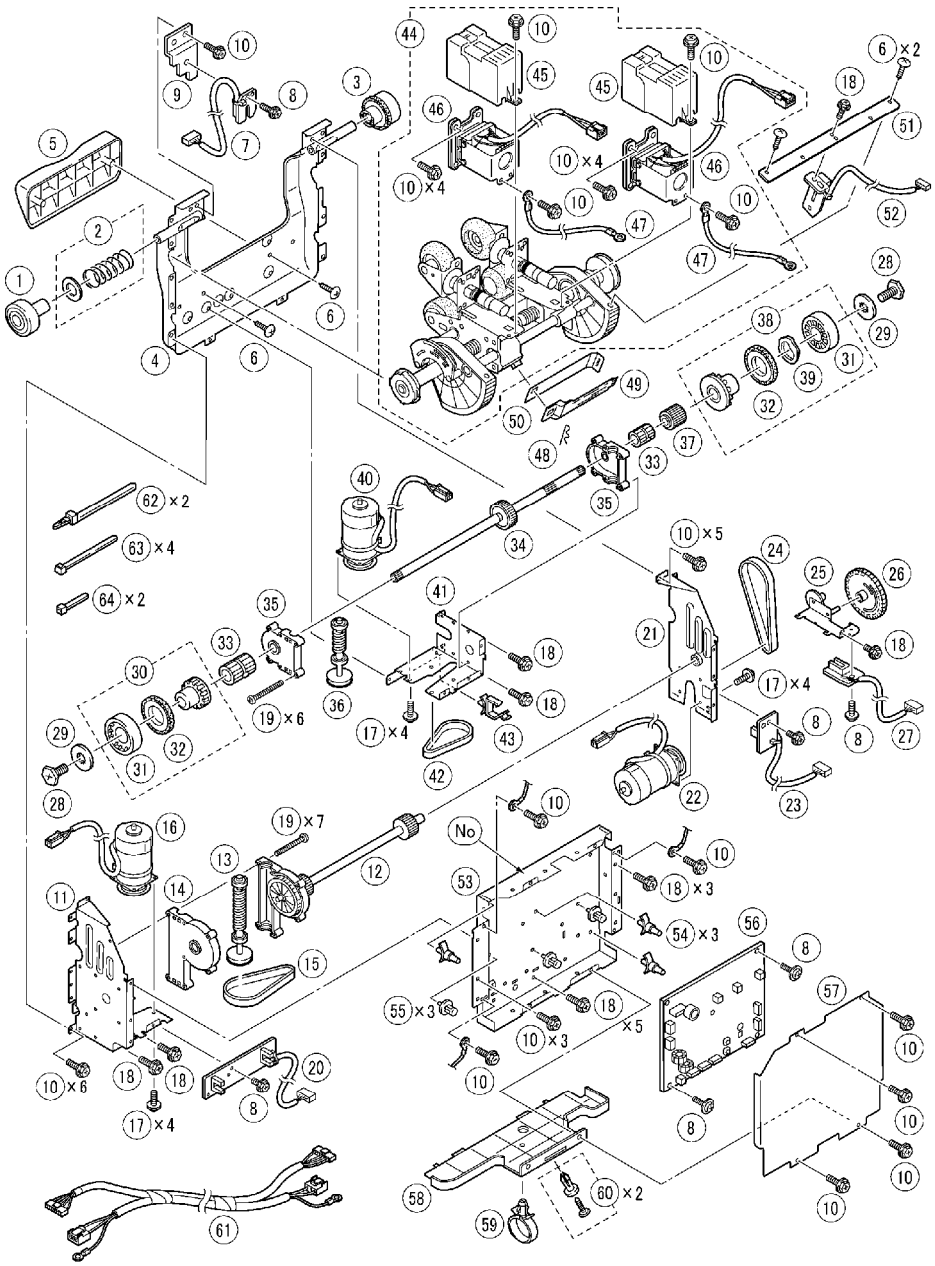

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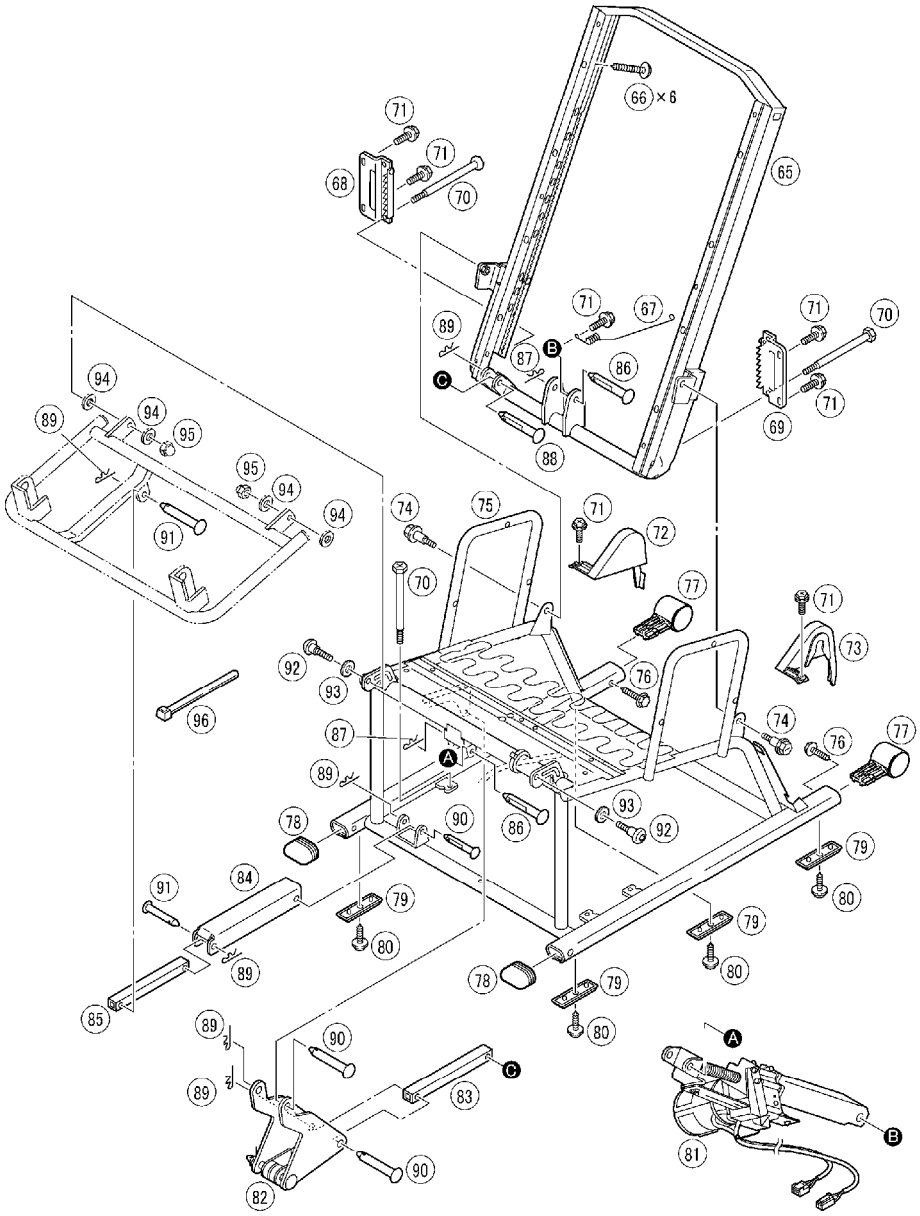

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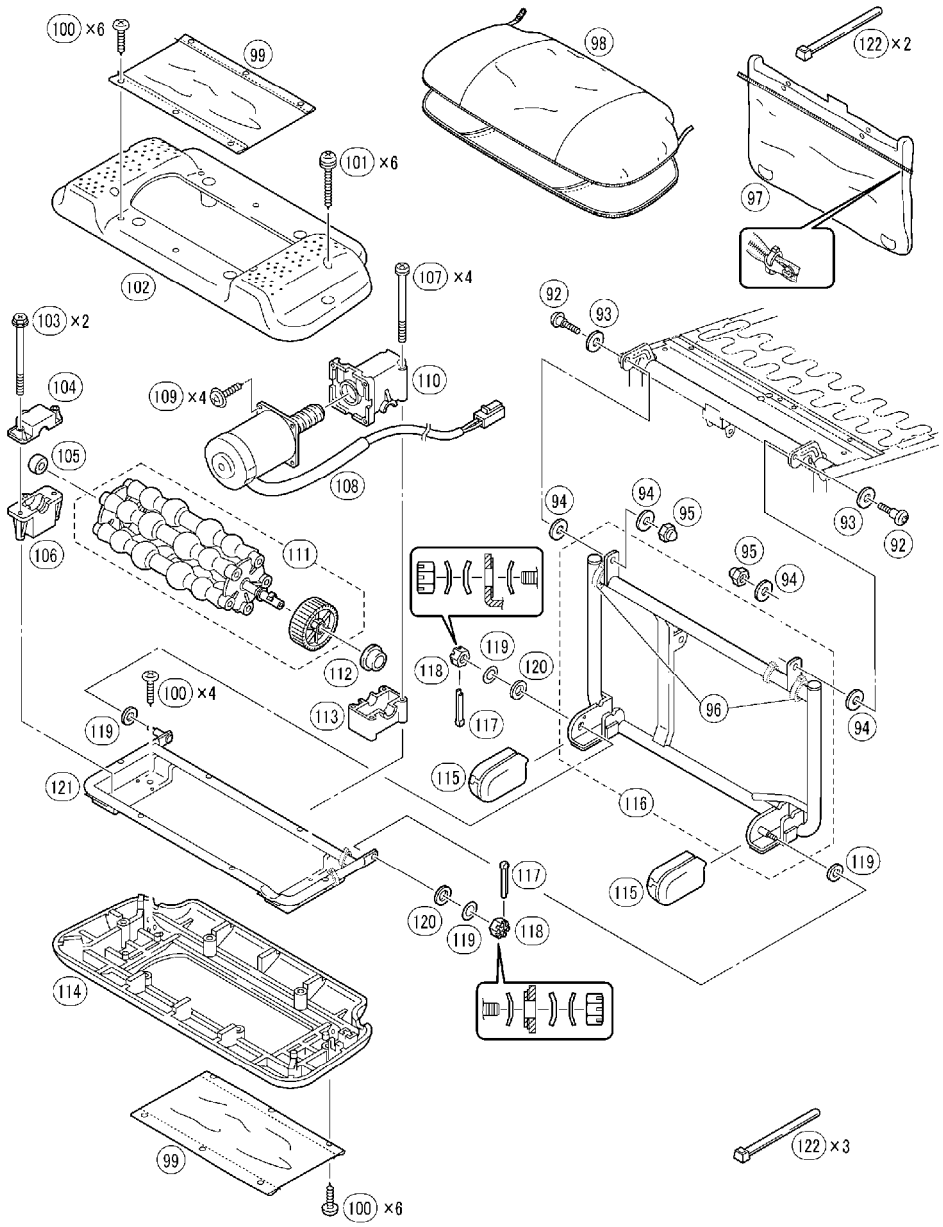

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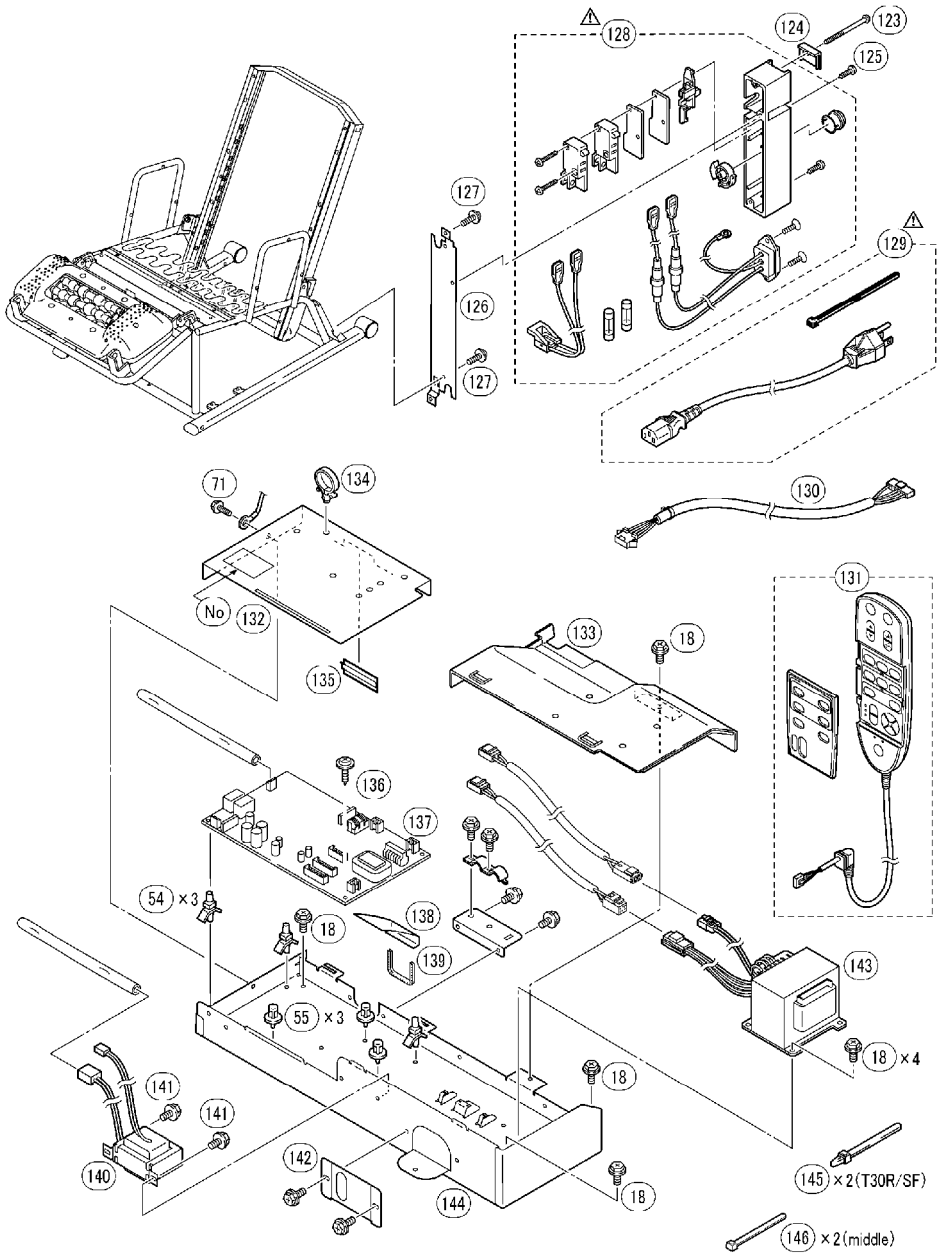

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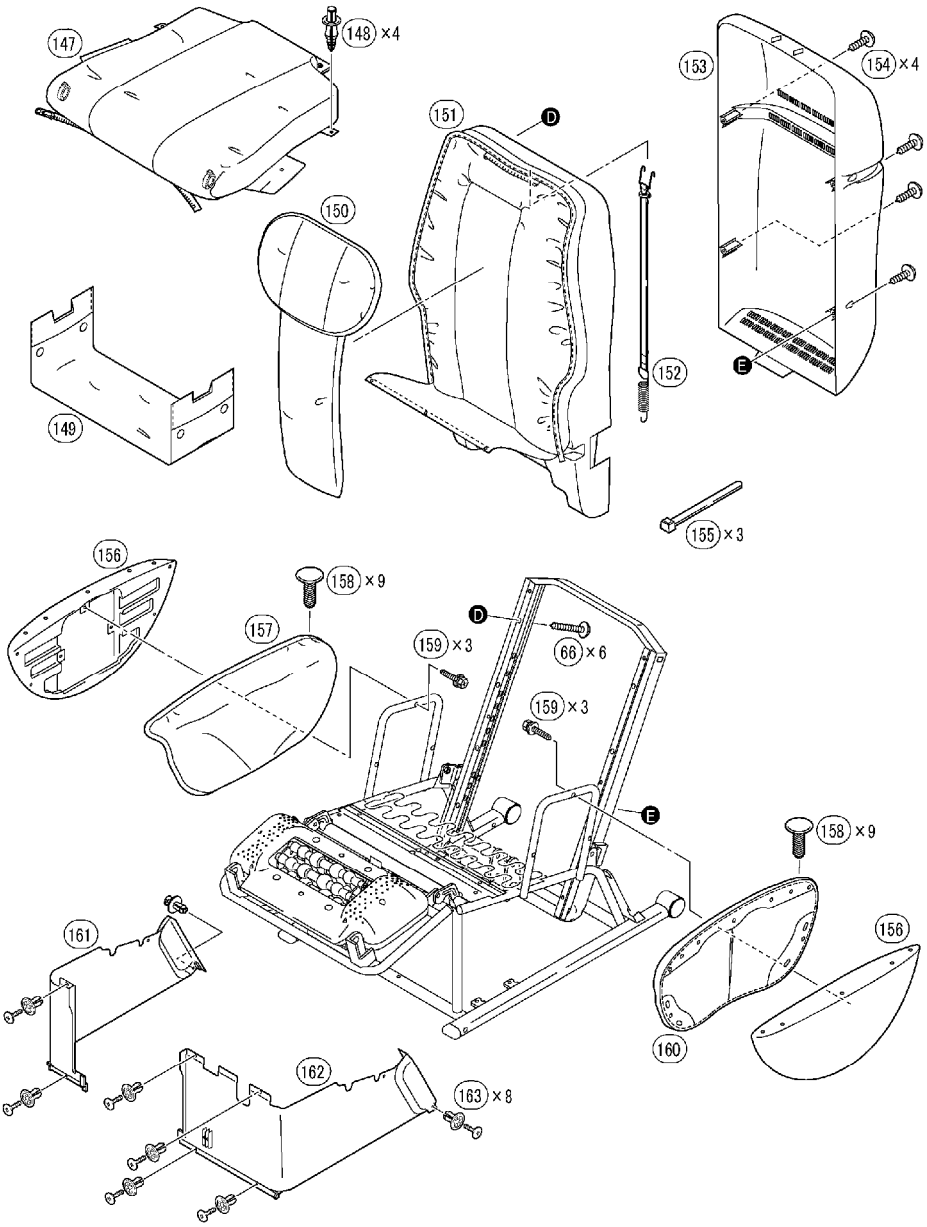

13. REPLACEMENT PARTS LIST

NOTES: As long as the destinations or the Massage loungers to which each parts should be installed are not specified, each parts can be installed to any EP1061 Massage loungers.

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
1	WEP2200L1967	GUIDE ROLLER			1
2	WEP2200L0167	GUIDE ROLLER SPRING SET			1
3	WEP760L0157	GUIDE ROLLER ASSEMBLY			1
4	WEP2200L0047	MAIN FRAME			1
5	WEP2200L0067	PROTECTION COVER			1
6	WEP2200L9697	SCREW (T4-16)			4
7	WEP1260L2268	INTENSITY ADJUSTMENT SENSOR			1
8	WEP590L6017	SCREW (CUP.S.K3-6)			5
9	WEP2200L0057	INTENSITY SENSOR PLATE			1
10	WEP2000L9567	SCREW (CUP.S.K4-10)			32
11	WEP1260L0008	INTENSITY MOTOR PLATE			1
12	WEP2200L1347	INTENSITY DRIVE SHAFT			1
13	WEP2200L1417	INTENSITY WORM SHAFT			1
14	WEP2200L1787	INTENSITY GEAR BOX A			1
15	WEP2200L1127	INTENSITY BELT			1
16	WEP1260L1008	INTENSITY MOTOR			1
17	WEP592AL9597	SCREW (CUP.S.K5-10)			20
18	WEP573L6627	SCREW (CUP.S.K4-6)			14
19	WEP2200L9677	SCREW (M4-40)			7
20	WEP2200L2197	REVOLUTION SENSOR			1
21	WEP1260L0018	WIDTH MOTOR PLATE			1
22	WEP1260L1018	WIDTH MOTOR			1
23	WEP2200L2207	WIDTH REVOLUTION SENSOR			1
24	WEP2200L1107	WIDTH BELT			1
25	WEP2200L1847	UP/DOWN SENSOR PLATE			1
26	WEP1061L1397	UP/DOWN SENSOR GEAR			1
27	WEP2200L2187	UP/DOWN SENSOR			1
28	WEP596L6057	UP/DOWN SHAFT BOLT			2
29	WEP579L3530	FITTING			2
30	WEP2200L1447	PINION B BLOCK			1
31	WEP545H1937	GUIDE ROLLER B			2
32	WEP578AL0317	RUBBER RING			2
33	WEP2200L0337	UP/DOWN SHAFT B			2
34	WEP2200L0377	UP/DOWN SHAFT			1
35	WEP2200L1797	UP/DOWN GEAR BOX			2
36	WEP2200L1427	UP/DOWN WORM SHAFT			1
37	WEP2200L0327	UP/DOWN SENSOR GEAR			1
38	WEP2200L1457	PINION C BLOCK			1
39	WEP2200L1907	PINION C SPRING			1
40	WEP1260L1028	UP/DOWN MOTOR			1
41	WEP1260L0028	UP/DOWN MOTOR PLATE			1
42	WEP2200L3417	UP/DOWN BELT			1
43	WEP2200L0537	WIRE CLIP 1A58			1
44	WEP1260L4608	WIDTH DRIVING BLOCK			1
45	WEP1260L3108	SOLLENOID COVER			2
46	WEP1260L4188	SOLLENOID BLOCK			2
47	WEP1260L2948	GROUND WIRE			2
48	WEP1004S0358	SNAP PIN SSP-5			1
49	WEP2200L0478	WIDTH SENSOR PLATE			1
50	WEP2200L3047	WIDTH SENSOR GREASE COVER			1
51	WEP2200L3547	WIDTH SENSOR PLATE B			1
52	WEP1260L2278	WIDTH SENSOR			1
53	WEP2200L0037	P.C.B.PLATE			1
54	WEP2110L0517	CIRCUIT BOARD SPACER			7

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
55	WEP567ED3467	BUSH C FOR P.C.B			3
56	WEP1260L2108	MAIN CIRCUIT BOARD W/COMPONENT			1
57	WEP2200L0247	COVER FOR P.C.B.			1
58	WEP1260L0528	MASSAGE MECHANISM COVER			1
59	WEP1010L0598	COVER CLIP			1
60	WEP2110L0427	PLASTIC RIVET 21M2			2
61	WEP1260L2058	CONNECTING CORD FOR POWER SUPPLY (USA)			1
61	WEP1260L2088	CONNECTING CORD FOR POWER SUPPLY (CANADA)			1
62	WEP005W8537	INSULATED TIE (MEDIUM T30/SF)			2
63	WEP004W8517	INSULATED TIE (MEDIUM)			4
64	WEP004W8507	INSULATED TIE (SMALL)			2
65	WEP1061L0087	BACK FRAME			1
66	WEP757L9687	SCREW (T4-16)			6
67	WEP1800L0687	CORD WIRE			1
68	WEP1061L0767	RAIL PIECE RIGHT			1
69	WEP1061L0777	RAIL PIECE LEFT			1
70	WEP2110L6347	SCREW (M4-56.2)			2
71	WEP2000L9567	SCREW (CUP.S.K4-10)			13
72	WEP1061K3157	HINGE COVER RIGHT			1
73	WEP1061K3167	HINGE COVER LEFT			1
74	WEP2200S6017	BOLT			2
75	WEP1061K0097	UNDER PIPE			1
76	WEP2005K6537	SCREW (6ANGLE.M5-16)			2
77	WEP1061K3907	CASTOR			2
78	WEP2110K3187	PIPE END			1
79	WEP578K3377	SEAT PLATE			4
80	WEP760N9607	WASHER-HEAD TAPPING SCREW (K4-10)			4
81	WEP1260L1538	OTTOMAN LIFT UNIT			1
82	WEP1061L1547	OTTOMAN ROLLER LINK			1
83	WEP1260L1678	OTTOMAN INTERLOCK LINK			1
84	WEP1061L1597	OTTOMAN LINK A			1
85	WEP1061L1607	OTTOMAN LINK B			1
86	WEP2200L0907	HINGE PIN LARGE			2
87	WEP589L0351	SNAP PIN LARGE			2
88	WEP2000L0937	HINGE PIN D			1
89	WEP585H0368	SNAP PIN			6
90	WEP2100L0417	OTTOMAN LIFT PIN LONG			3
91	WEP2200L0387	FRONT SHAFT			2
92	WEP1260L6808	HINGE PIN B			2
93	WEP757L6987	POLYETHYLENE WASHER			2
94	WEP2000L6987	METAL WASHER			4
95	WEP2100L6937	U NUT			2
96	WEP004W8517	INSULATING TIE MIDDLE			2
97	WEP1061K3197	OTTOMAN PIPE CLOTH			1
98	WEP1061K3108	LEGREST COVER			1
99	WEP2010V3207	OTTOMAN CLOTH			2
100	WEP757L9687	SCREW (T4-16)			16
101	WEP596L9648	SCREW (B4-35)			6
102	WEP1014L1878	ROLLER OTTOMAN CASE B			1
103	WEP760L9677	SCREW (B4-51)			2
104	WEP2010L1857	SHAFT HOLDER CASE B			1
105	WEP1061L0387	SHAFT HOLDER			1
106	WEP2010L1867	SHAFT HOLDER CASE A			1

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
107	WEP2100L9007	SCREW (M4-80)			4
108	WEP1061L1008	ROLLER OTTOMAN MOTOR			1
109	WEP2010L6118	SCREW (M4-14)			4
110	WEP2010L1887	ROLLER OTTOMAN GEAR BOX A			1
111	WEP2100L4617	ROLLER			1
112	WEP1061L5227	GEAR BOX SHAFT HOLDER B			1
113	WEP2010L1897	ROLLER OTTOMAN GEAR BOX B			1
114	WEP1014L1908	OTTOMAN HOUSING A			1
115	WEP1061K1917	FULCRUM COVER			2
116	WEP1061L0377	OTTOMAN PIPE A			1
117	WEP2010L0917	SLIT PIN			2
118	WEP2010L6437	HEX NUT M8			2
119	WEP2000L6907	WASHER B			4
120	WEP2010L6897	WASHER			2
121	WEP1061L0367	OTTOMAN PIPE B			1
122	WEP004W8517	INSULATED TIE (MEDIUM)			5
123	WEP1260L6108	SCREW (S.K3-45)			1
124	WEP2110H3127	BUSHING COVER			1
125	WEP1061K9087	SCREW (T.K3-45)			1
126	WEP1061L0077	POWER SOURCE BOX LID			1
127	WEP1061L6627	SCREW(K4-6)			2
128	WEP1260K2008	POWER SOURCE SWITCH BLOCK			1
129	WEP1260L2938	POWER CORD			1
130	WEP1260L2968	CONNECTING CORD FOR CONTROLLER			1
131	WEP1061K4458	CONTROLLER BLOCK			1
132	WEP2110L0267	UNDER BOX TOP/RIGHT			1
133	WEP1260L0277	UNDER BOX TOP/LEFT			1
134	WEP2000L0717	ROD HOLDER C			2
135	WEP2110L3758	EDGE GUARD TOP			1
136	WEP2000L6017	SCREW (CUP.S.M3-5)			1
137	WEP1061L2108	SUB CIRCUIT BOARD			1
138	WEP2110L0227	HEATPROOF SHEET			1
139	WEP2110L3527	EDGE GUARD			1
140	WEP1260L2638	POWER SOURCE TRANSFORMER			1
141	WEP578L9537	SCREW (CUP.S.K4-8)			2
142	WEP2110L3137	PROTECTION BOARD			1
143	WEP1260L2639	TRANSFORMER			1
144	WEP1260L3517	UNDER BOX BOTTOM			1
145	WEP005W8537	INSULATED TIE (MEDIUM T30/SF)			2
146	WEP005W8517	INSULATED TIE (MEDIUM)			4
147	WEP1061K3638	SEAT (USA)			1
147	WEP1061K3687	SEAT (CANADA)			1
148	WEP2010L0517	RIVET			4
149	WEP1061L3637	SEAT COVER			1
150	WEP1060K3638	BACK CUSHION WITH PILLOW (USA)			1
150	WEP1061K3648	BACK CUSHION WITH PILLOW (CANADA)			1
151	WEP1060K3678	MASSAGE WHEEL COVER (USA)			1
151	WEP1061K3668	MASSAGE WHEEL COVER (CANADA)			1
152	WEP1061L0857	CENTER BELT			1
153	WEP1060K3108	REAR COVER (USA)			1
153	WEP1061K3118	REAR COVER (CANADA)			1
154	WEP2200L9697	SCREW (T4-16)			4
155	WEP555Y0737	INSULATING TIE LARGE			3
156	WEP1061K3767	SIDE COVER			2

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
157	WEP1060K3618	ARMREST RIGHT (USA)			1
157	WEP1061K3698	ARMREST RIGHT (CANADA)			1
158	WEP1260L6818	RIVET 3E46/BRUSH CLIP 5347 SET			18
159	WEP1061L6007	SCREW (6ANGLE.M5-30)			6
160	WEP1060K3638	ARMREST LEFT (USA)			1
160	WEP1061K3718	ARMREST LEFT (CANADA)			1
161	WEP1260K3858	UNDER COVER RIGHT			1
162	WEP1260K3868	UNDER COVER LEFT			1
163	WEP596K0457	RIVET			8
	WEP1061L8008	PACKAGING FOR EP1061K234			1
	WEP1061L8018	PACKAGING FOR EP1061K264			1
	WEP1061L8088	MANUALS FOR EP1061K234			1
	WEP1061L8098	MANUALS FOR EP1061K264			1
	WEP1260L4008	MASSAGE MECHANISM BLOCK			1

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